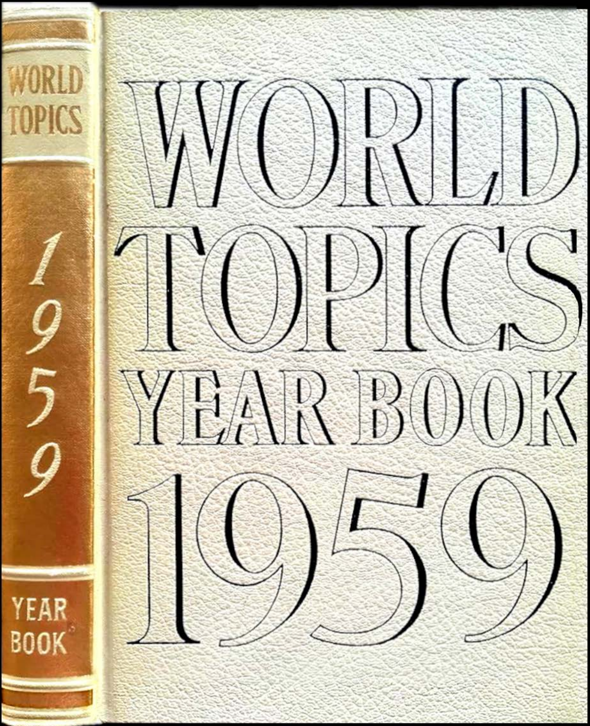

(COVERING EVENTS OF 1958)

WORLD TOPICS

Year Book 1959

A Pictorial Survey of the Leading Events and Trends of 1958

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Foreword

A Golden Treasury of Days

A wise man said it: "Every day is a miracle and unrepeatable." We have only to reflect a moment to realize how miraculous a thing a day is, and how fortunate we are to be living it. Once lived, a day cannot return; we cannot change one word of the record history has written. But we *can* return to the days of the year just past. THE WORLD TOPICS YEAR BOOK, like the legendary time machine, takes you on a journey through the busy days of a dramatic and important year. You may repeat this mental journey, or any part of it, as often as you choose. THE WORLD TOPICS YEAR BOOK is a book you will want to keep, and use again and again through the years to come.

A Time Saving Key to World Affairs

THE WORLD TOPICS YEAR BOOK is not only a permanent record, it is also a key to better understanding of trends and events in your community, your country, your world. Historians and librarians have long recognized the value of the year book as a guide to historic events. Now the same guide to understanding is yours.

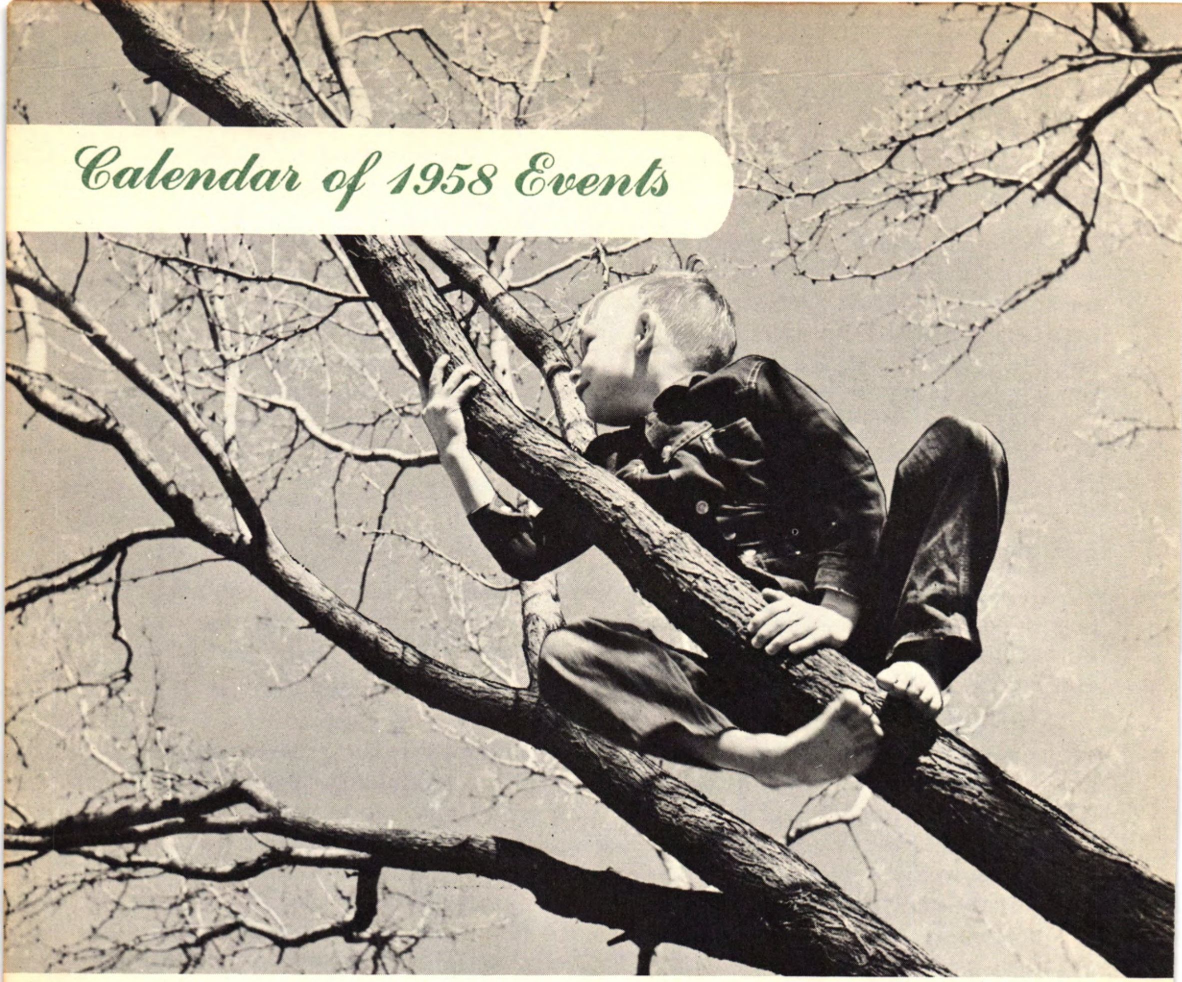
Do you often wish you were better prepared when conversation turns to a particular topic in national or world affairs? You could get this background yourself, if you wished to spend months collecting, organizing, evaluating, and reading a costly library of hundreds of books and thousands of newspapers and magazines. Instead, we suggest that you use this single permanent volume, which costs less than a few weeks' subscription to a daily paper. You will find the principal events of the year—analyzed and interpreted—in their alphabetical place in THE WORLD TOPICS YEAR BOOK. For specialized subjects, for pictures, and for alternate subject headings, please consult the *Comprehensive Index* at the back of the book. For the day to day tide of events, see the *Calendar* beginning on page 4. A new feature added this year is a calendar of special events and observances for 1959.

Your Family History

Your family represents the unit that is the foundation of all human society. Without the family, nations would dissolve, law would fail, and civilization as we know it would die. Just as you turn to WORLD TOPICS for what the world was doing; you consult it also for what your family did in the past year. Too often we forget family events. We believe that your family is entitled to its own historical record, compiled year by year. A special section of THE WORLD TOPICS YEAR BOOK is set aside as a record of *Our Family's History for the Year*. Here is the framework for recording those "things to remember" in your family life—holidays, vacation, educational honors, birthdays, the family tree, family treasures, and many others. If there are children in your family, they will enjoy looking back to what they did and said. This, then, is your own history, more important than wars and treaties, for you and your family to cherish.

The Publishers

Calendar of 1958 Events



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JANUARY . . .

1. Sec. of Commerce Weeks predicted a business upturn in 1958.

In Caracas, a revolt broke out against the Venezuelan government.

2. Venezuelan army moved to crush revolt, putting rebel chiefs to flight.

3. Sir Edmund Hillary and four New Zealand companions reached South Pole with a train of tractors.

U. S. Air Force announced formation of two ICBM squadrons.

U.S.S.R. will loan Mideast countries $1.5 billions in two and a half years.

4. Ex-Pres. Truman urged Pres. Eisenhower to take the initiative for peace.

Prime Minister Macmillan proposed East-West meeting for easing tensions.

5. Lieut.-Gen. James M. Gavin, head of Army's Research and Development unit, resigned after policy clash.

6. U.S.S.R. reduced armed forces by 300,000.

Pres. Sukarno of Indonesia arrived in India on state visit.

7. United States announced lowering of loan rates to undeveloped nations.

8. Federal Housing Administration eased requirements for home buyers.

9. Algerian rebels blew up Sahara railway over which first shipment of oil from new desert well was to pass.

10. Atlas ICBM test in Florida was declared a success, though missile was held down to limited range.

11. Drop in tax yields was reported by 16 states.

12. Rockefeller Brothers' Plan, released to press, urged a $3 billion increase in defense spending.

13. Pres. Eisenhower asked Congress for a record peacetime budget of $73.9 billion, of which more than 60% was for war and defense.

United Nations was petitioned by 9,000 scientists of 43 countries to call for ending of nuclear bomb tests.

14. Pres. Eisenhower's bud-

1958 CALENDAR

get proposed cuts in health and welfare fields.

15. **Sir Leslie Munro,** president of U.N. General Assembly, said problems of space age should be settled by that body.

16. **Sec. of State Dulles** proposed international board to control use of outer space.

Premier Felix Gaillard of France won a vote in French National Assembly by a narrow margin.

17. **Jobless insurance** in United States was being paid to 2,809,300 unemployed.

U. S. Navy's solid-fuel Polaris missile was test-fired.

18. **Lumbi Indians** broke up Ku Klux Klan rally in Maxton, N.C.

19. **French vessel** seized Yugoslav arms shipment, intended for Algerian rebels.

Guatemalans went to polls in presidential election.

20. **Vivian Fuchs** arrived at South Pole after 8-week trek across Antarctica.

Pres. Eisenhower asked restraint on price and wage rises in annual economic report to Congress.

21. **General strike** in Caracas, Venezuela, aimed to oust Pres. Perez Jiminez.

U.S.S.R. broadcast a warning to the West to keep the Mideast free of nuclear and long-distance missiles.

22. **Revolution** in Venezuela continued, bringing death to more than 100.

Sec. of State Dulles flew to Mideast to confer with Baghdad Pact leaders.

23. **Perez Jiminez** fled Venezuela and a 7-man civilian and military junta took control.

24. **Civil Aeronautics Board** authorized an increase in domestic plane fare.

25. **Home building firms** planned more construction in 1958, with easing of money market.

26. **Democrats in Congress** increased pressure for quick revamping of Pentagon.

In Baghdad, Sec. of State Dulles promised more aid to Baghdad Pact nations.

27. **United States and Spain** signed an agreement involving $69 millions in surplus farm products, bringing to more than a billion the aid given that country.

United States and U.S.S.R. signed an agreement to broaden exchange in technical, educational, art, and sports fields.

28. **French Assembly** voted Algerian political reforms.

29. **Political union** between Egypt and Syria was rumored in Mideast.

30. **Sec. of Labor Mitchell** said he expected 4 million unemployed in February, with a downturn at midyear.

31. **Adlai Stevenson** called for world panel of citizens to sift arms plans, and bade U.S. compete with U.S.S.R. in economic aid to poor nations.

FEBRUARY						
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FEBRUARY . . .

1. **Egypt and Syria** proclaimed their union, bidding other Arab nations join them.

2. **Cuban rebels** announced plans for island-wide sabotage of plants and factories.

Pres. Eisenhower received new bid from Bulganin for Summit talks.

3. **Benelux countries** signed a treaty abolishing trade curbs.

United States and Yugoslavia signed an agreement by which Yugoslavia will buy U. S. farm surpluses.

4. **U. S. anti-trust suit** against the United Fruit Company was settled when the company agreed to set up a competitor in the banana business.

5. **Pres. Nasser** of Egypt was formally nominated by Egyptian and Syrian parliaments to head United Arab Republic.

6. **Accidents in 1957** in United States took 94,800 lives, of which 38,500 involved motor vehicles.

7-11. **Blizzards** in upstate New York accounted for 21 deaths; 37 inches of snow fell in Syracuse.

8. **French planes** bombed Tunisian town said to be supplying Algerian rebels, killing 68, wounding 100 civilians.

Japan announced its first controlled fusion reaction.

9. **Tunisia protested** in United Nations against France's act of aggression.

11. **Pres. Eisenhower** announced $2 billion program for modernizing U. S. post offices.

Chou En-lai, 60, resigned as China's foreign minister, to be succeeded by Marshal Chen Yi, a deputy premier.

12. **Pres. Eisenhower,** in statement to nation, predicted an early upturn in economic activity.

13. **Bernard Schwartz,** ousted counsel for House sub-committee, charged that FCC member R. S. Mack had received money as a fixer for a National Airlines subsidiary.

Eleven Democratic governors urged Pres. Eisenhower to take practical measures to avert depression.

14. **Hashemite Kingdoms** of Jordan and Iraq proclaimed in Amman the establishment of the Arab Federal State, which left the kings of both countries on their thrones.

Georges Rouault, modernist painter, died in Paris at 86.

Harold Stassen resigned as special Presidential assistant on disarmament.

15. **Revolutionary regime** was proclaimed for Indonesia in central Sumatra, following demand for ouster of all Communisits from Jakarta government.

United States and Poland signed an agreement providing for $98 million in aid to Poland, taking the form of surplus farm products.

1958 CALENDAR

15-16. Blizzards in northeastern U. S. caused 171 deaths.

16-17. Heavy fighting between anti-Batista rebels and government forces was reported in eastern Cuba.

17. Jakarta government imposed an economic blockade against rebel regime on Sumatra and north Celebes.

18. Unemployment in Canada rose to a postwar high of 520,000 in January.

19. Pres. Eisenhower in special message asked Congress to authorize $3.9 billion in foreign aid for fiscal year 1959, this sum exceeding by a half billion the 1958 appropriation.

Robert D. Murphy, of U. S. State Dept., was named conciliator in French-Tunisian dispute.

20. Nathan Leopold, Jr., convicted slayer of Bobby Franks, was granted a parole after serving 34 years of a life sentence in Statesville (Illinois) Prison.

21. Egypt and Sudan clashed over disputed border area.

22. Arturo Frondisi, leftist radical supported by Peronists, was elected president of Argentina in first presidential election in 30 years.

23. U. S. Commerce Dept. reported gross national product reached a record $434.4 billion in 1957, topping 1956's record of $343.6 billion.

24. Sir Winston Churchill was recovering from pneumonia on the French Riviera.

Radio Corp. of America was indicted by a Federal grand jury on charge of violating anti-trust law.

25. Great Britain issued terms for governing U. S. missile bases and the conditions for the use of such weapons.

United States recognized the United Arab Republic.

26. Soviet troops began to withdraw from Hungary.

Pres. Eisenhower revealed the existence of a pact with Vice-Pres. Nixon concerning the President's possible future incapacity.

27. School bus plunged into Big Sandy River, Ky., killing 27 children and driver.

U.S.S.R. detonated nuclear devices in megaton (million ton) range in Arctic test area.

Jakarta troops landed on northern Celebes in Indonesian civil war.

28. U.S.S.R. agreed to foreign ministers' talk as preliminary to Summit meeting, but set limits rejected by U. S.

MARCH

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MARCH . . .

1. Bishop of Prato, Italy, was fined after a three-judge court found him guilty of criminal character defamation.

2. Yemen announced readiness to join Egypt-Syrian Federation, retaining its absolutist government under Iman Ahmed.

Vivian Fuchs and party reached Scott Base, McMurdo Sound, completing first overland crossing of Antarctic Continent.

3. Terms of **Pres. Eisenhower's** disability pact with Nixon were made public.

4. Sec. of State Dulles told news conference that he would reject latest Soviet terms for preparation of Summit meeting.

French commander in Algeria announced 8,000 rebels and 500 French soldiers had been killed in past two months of fighting.

5. Japan and Red China signed a trade pact in Peiping, providing for permanent exchange of trade missions.

U. S. Army's attempt to launch a second Explorer satellite into orbit failed.

6. Pres. Nasser made public his United Arab Republic cabinet, all key ministries being held by Egyptians.

Cairo-based plot to assassinate Pres. Bourguiba of Tunisia was reported.

7. Senate committee probe of Kohler strike ended after two weeks of hearings.

8. U.S.S.R. urged Southeast Asia powers to reject U. S. missiles and A-weapons, to create an atom-free zone.

9. Airman Donald G. Farrell began his week's stay in a steel chamber, under conditions of space flight, at the School of Aviation Medicine, Randolph Base, Tex.

10. John Storrs Cross succeeded R. A. Mack as an FCC member.

Fidel Castro's threat of a general strike in Cuba did not materialize.

11. Pres. Bourguiba continued to demand withdrawal of all French forces from Tunisia.

Algerian rebel leaders in Rome offered to begin talks with France on a cease-fire and elections for a sovereign constituent assembly.

12. Cuban cabinet, appointed Mar. 6, resigned after Batista again suspended constitutional guarantees for 45 days.

13. Fourth annual SEATO meeting ended in Manila.

14. Shah of Iran announced that he had divorced his wife Queen Soraya because she had not produced a male heir.

15. French conservatives opposed concessions in Algeria, frustrating U. S.-British mediators.

16. Willard F. Libby proposed the establishment of international quotas on radioactivity from nuclear testing.

17. A 3¼ lb. Vanguard satellite was fired into orbit by Navy scientists, after delays and failures.

18. Pres. Eisenhower pledged prompt action to assist economic recovery.

19. Unemployed numbered nearly 5,500,000 in U. S., about 7% of total labor force.

20. Severe storm cut power

and travel on east coast, causing great loss of life and property, with New Jersey hardest hit.

21. **Consumer prices** were at record level, with food leading the rise.

22. **Pres. Nasser** tightened his grip on Syria by removing Syrian army chief, Afif Bizri.

Jakarta troops drove rebels out of U. S. oil center on Sumatra.

Producer Mike Todd died in crash of his own plane.

23. **American scientists** Killian, Rickover, and Tuve offered plans for improving U. S. high schools.

24. **AFL-CIO urged** tax cut now.

King Saud of Saudi Arabia handed over vital power of government to his brother, Crown Prince Faisal.

25. **After 4-day debate,** West German Bundestag approved Adenauer program for accepting nuclear weapons.

26. **Explorer III** was fired into orbit at Cape Canaveral, Fla., with brief life expected.

27. **Khrushchev** took over Bulganin's post as foreign minister.

28. **Cuban rebellion** seemed imminent.

Pentagon planned to give more power to Sec. of Defense.

29. **U.S.S.R. protested** coming U. S. atomic tests in Marshall Islands.

30. **Israel and Syria** engaged in border clashes.

31. **U.S.S.R. announced** unilateral halt of atomic testing, with condition that it will be renewed if other nations continue.

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APRIL . . .

1. **Pres. Eisenhower** signed an emergency housing bill.

One-day strike of government and transport workers crippled France.

2. **Pres. Eisenhower** asked Congress to authorize creation of a non-military outer-space agency, manned by civilians, and unification of combat forces and weapons development.

3. **House and Senate** passed bill authorizing increased expenditure for federal road building.

1958 CALENDAR

India again rejected proposals for U.N. settlement of Kashmir dispute.

4. **House of Rep.** probers charged FCC with improper activities.

Actress Lana Turner's daughter killed her mother's suitor.

5. **Floods in California** caused 12 deaths and an estimated $15.000,000 in property damage. The region was declared a disaster area by Pres. Eisenhower.

6. **Crash of Capitol Viscount** plane on attempted landing at Tri-City Airport, Mich. killed all 47 persons aboard.

7. **Indonesian government** announced purchase of Soviet arms, including fighters and bombers.

8. **U.S.S.R. and West Germany** announced agreement on increased trade and repatriation of German citizens now in Soviet Union.

George Jean Nathan, eminent drama critic, died in New York City at 76.

9. **General strike** order was issued by leaders of Cuban insurgents, in effort to oust Batista.

Leaving Hungary, Khrushchev defended Soviet intervention there in 1956.

10. **Civil disturbances** in Lebanon resulted from government's pro-Western stand.

Moscow announced that Soviet youths under 18 were responsible for only 5.2% of all recorded criminal offenses in 1956.

11. **Morocco declared** it would seek the removal of Spanish, French, and U. S. forces from Moroccan bases.

U.S.S.R. and U.S. agreed on pre-Summit diplomatic talks.

12. **Failure of general strike** discouraged Cuban rebels.

13. **Indonesian government** sent naval force to Sumatra to prepare for invasion of rebel stronghold.

14. **Russian news agencv** announced that Sputnik II had disintegrated after circling earth about 2,370 times.

15. **Conflagration** at Museum of Modern Art, New York City, killed workman, caused estimated $320,000 damage.

Ex-Pres. Truman advocated low and middle income tax cuts.

16. **French Premier Felix Gaillard** resigned after no-confidence vote in the Assembly on U. S.-British plan for Tunisian settlement.

17. **Marshal Tito** began his third term as president of Yugoslavia, reasserting his freedom of Russian control.

Brussels World's Fair was opened to the public.

Indonesian government captured Padang on Sumatra.

18. **U.S.S.R. complained** at U.N. that U. S. bombers carried nuclear weapons when flying over Arctic.

19. **Saudi Arabia** ruled out alliance with either of the new groupings of Arab countries.

20. **Mediation** of French-Tunisian affair by U. S. and British was suspended.

21. **Collision** in flight of airliner and Air Force sabre jet near Las Vegas, Nev. killed all 49 persons on the two planes.

U.S.S.R. announced reduction of work week to 40 hours for those in heavy industry, and to 35 hours for miners.

22. **Princess Margaret** opened new West Indies Federation parliament at Port of Spain, Trinidad.

23. **Five paratroopers** were killed and 100 were hurt in a windblown drop at Fort Campbell, Ky.

24. **Israel celebrated** tenth birthday.

25. **Defense Sec. McElroy** accepted major revisions in administration plan for Pentagon reorganization.

26. **U.N. agreed** to consider U. S. proposal for international control of bomber flights in Arctic region.

27. **Prime Minister Nehru** announced he would take long holiday, delegating his authority.

Samuel Cardinal Stritch's right arm was amputated in Rome because of a blood clot.

28. **C.I.A. Chief Dulles** declared the rate of Soviet technical advances threatened U. S. economy.

Vice-Pres. and Mrs. Nixon began goodwill tour of eight South American countries with visit to Uruguay.

29. **U.N. chief** backed Arctic air check advocated by U. S.

Nation's jobless numbered 5,120,000.

30. **U. S. released** Egyptian funds frozen when Egypt seized Suez Canal.

Senate offered an 8-point plan for helping U.S. railroads.

MAY						
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MAY . . .

1. **Dag Hammarskjold,** U.N. Secretary, defended U. S. plan for Arctic inspection.

Arturo Frondizi was sworn in as Argentina's president.

2. **Kentucky Derby** was won by Tim Tam.

U.S.S.R. cast veto against Arctic inspection plan.

3. **Law officers** of 28 Southern cities took joint action to halt anti-Jewish and anti-Negro bombings, of which 46 have occurred since Jan., 1957.

4. **Southern School News** reported only a slight advance since fall, 1957, in school desegregation.

Alberto Lleras Camargo became president of Colombia, ousting Dictator Pinella.

5. **Writer James Branch Cabell** died in Richmond, Va., at 79.

Indonesian rebel capital in Sumatra fell.

6. **NATO delegates** convened in Copenhagen.

An air-raid alert emptied the streets of cities in 46 states.

1958 CALENDAR

7. Soviet Central Committee agreed to Khrushchev's plan for high consumer production.

8. Vice-President Nixon was stoned by rioters in Lima, Peru.

Railway collision killed 128 persons, injured 300, near Rio de Janeiro.

9. Joseph E. Davies, former ambassador to U.S.S.R., died in Washington, D.C., at 81.

Anti-Western riots began in Lebanon.

10. Forest Fires in U. S. in 1957 numbered 83,392, as compared to 143,000 in 1956, according to Forest Service report.

11. Soviet press attacked Yugoslavia for deviations from Communist doctrine.

12. Constantine Karamanlis, of National Radical Union party, became premier of Greece.

Arab Federal State, joining Iraq and Jordan, came into being.

13. French army seized control in Algeria, in defiance of Paris.

Congress voted aid to about 70 depressed industrial and 300 rural areas of nation.

U. S. flew marines and paratroopers to Caribbean bases, following attacks on Nixon in Caracas, Venezuela.

14. Pierre Pflimlin, Liberal Catholic leader, became premier of France, and appointed Gen. Salan to command in Algeria.

U. S. speeded arms shipments to Lebanon.

15. Sputnik III, 2,925 lb. earth satellite, was launched from an undisclosed site in U.S.S.R.

Vice-Pres. Nixon returned to Washington after South American tour.

Khrushchev pledged support to eventual union of Arab peoples under Nasser.

16. A 1,404.19 mph official world speed record at level flight was set by Capt. Walter W. Irwin, 32, in a single-jet USAF Lockheed Starfighter.

17. Vice-Pres. Nixon was reported to have said South Americans believed U. S. policy helped keep dictators in power.

18. Elmer Davis, famed news analyst, died in Washington, D.C., at 68.

19. Ronald Colman, versatile actor, died in Santa Barbara, Calif., at 67.

20. Mid-air collision between passenger plane and jet trainer, over Brunswick, Md., caused 12 deaths.

Harold Stassen was defeated in bid for Republican nomination for governor of Pennsylvania.

U. S. Army announced it had set up Strategic Army Corps (STRAC) composed of infantrymen and paratroopers, to deal with limited wars.

22. Japanese election gave Premier Kishi's party of Liberal Democrats a majority, although Socialists made gains; 77% of eligible voters went to polls.

24. Lebanese government appealed to U.N. to prevent infiltration of United Arab Republic soldiers.

Rightist revolt in Corsica added to France's troubles.

25. In Italian election, pro-West Center coalition retained its majority.

26. Units of French fleet demonstrated in support of Algerian insurrection.

27. Gen. de Gaulle issued a statement that he had started the regular process for the legal assumption of power, after talks with Premier Pflimlin.

Samuel Cardinal Stritch, 70, archbishop of Chicago and new appointee to high Vatican office, died in Rome.

Pres. Eisenhower signed bill increasing postal rate and pay of postal employees.

28. Premier Pflimlin resigned, paving the way for Gen. de Gaulle's return.

29. Rep. Adam Clayton Powell lost Democratic backing in bid for renomination.

Juan Ramon Jiminez, Spanish poet and Nobel prize-winner, died in Puerto Rico, at 76.

30. Air safety and co-ordinating program, ordered by Pres. Eisenhower, was being put into effect by the Civil Aeronautics Board.

31. French Assembly approved return of Gen. de Gaulle.

Khrushchev agreed to technical study of A-test ban enforcement, in reply to Eisenhower's proposal of May 9.

JUNE						
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JUNE . . .

1. Gen. Charles de Gaulle became French premier and was given full powers for six months.

2. Lebanon complained at U.N. over armed intervention by United Arab Republic.

Memorial Day weekend resulted in 589 accidental deaths, 371 in traffic.

3. French Assembly gave de Gaulle power to revise constitution, then recessed.

4. Khrushchev proposed U.S. credits for U.S.S.R. to promote U. S.-Soviet trade.

Jobless pay was extended for those who had used up state insurance through a system of Federal loans.

4-6. Gen. de Gaulle flew to Algeria to try to unite Moslems and French settlers as equals.

5. Rear Adm. Lewis L. Strauss ended term as chairman of Atomic Energy Commission, was replaced by John Alex McCone.

6. U. S. Senate voted $3.7 billion foreign aid authorization, but barred Red satellites.

7. British Prime Minister Harold Macmillan arrived in Washington for talks with

Pres. Eisenhower.

8. Outbreaks of violence occurred between Greeks and Turks at Nicosia, Cyprus.

9. Rear Adm. Americo Tomas was elected to a 7-year term as Portugal's president, with the opposition charging a rigged election.

10. Pres. Eisenhower informed U.S.S.R. that U. S. was ready to begin talks on enforcement of nuclear test ban.

11. U.N. Security Council voted to send observation team to Lebanon to check on charges of infiltration.

12. $150-million loan agreement was signed by India and U. S. Export-Import Bank, for purchase of industrial machinery.

13. U.S.S.R. agreed to Geneva talks on banning nuclear tests.

De Gaulle gained in test of strength with French Algerians and settled dispute over French troops in Tunisia.

14-16. Heavy fighting continued in Beirut between rebels and Lebanese army troops.

16. Indonesian army launched attack on Celebes rebels.

17. Sherman Adams, Pres. Eisenhower's chief aide, faced House investigators on charges of gift-taking from Boston industrialist, Bernard Goldfine.

Hungary announced execution of ex-Premier Imre Nagy and Maj. Gen. Pal Maleter for their leadership in 1956 revolt against U.S.S.R.

18. At news conferences, Eisenhower came to Adams' defense, and said "I need him." He also stated he favored giving aid to Red satellites, to help them achieve independence.

19. U.S.S.R. abolished compulsory deliveries by collective farms.

19-23. Reports of heavy fighting came from Indonesia.

20. Herbert Bayard Swope, famous journalist, died at 76 in New York City.

Greek government rejected British plan increasing home rule for Cyprus.

21. Dist. Judge Harry J. Lemley ordered two-and-a half-year suspension of school integration in Little Rock.

22. Cholera epidemic in Thailand caused 912 deaths.

23. Prominent Negro leaders urged on Pres. Eisenhower clear policy and implementation of Supreme Court's integration ruling.

24. Hearings in Adams-Goldfine case continued in Washington.

25. Lebanese Premier Sami es-Solh asked for armed U.N. intervention against U.A.R.

26-30. Cuban rebels abducted 45 Americans, charging U. S. aided Cuban Air Force. All were released within a few days.

27-28. Explorer III, Army's second earth satellite to orbit probably burned out during the night.

28. Demands for resignation or ouster of Sherman Adams came from both political parties.

Amintore Fanfani was installed as premier in Italy's 19th postwar government.

29. Lebanese army beat off rebel attacks in Beirut and Tripoli.

30. Alaskan statehood bill was passed by Senate and sent to Pres. Eisenhower for signature.

JULY						
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JULY . . .

1. **Nuclear weapons scientists** met in Geneva, to discuss ban on testing.

New Italian government, headed by Premier Amintore Fanfani, was installed.

2. **Several Americans** kidnapped by Cuban rebel leader Fidel Castro were released.

Premier Krushchev asked for East-West technical discussions on preventing surprise attacks.

3. **United Nations observers** in Lebanon expressed doubt of United Arab Republic intervention.

Hearings in the case of Bernard Goldfine, Boston industrialist, continued in Washington.

4. **Current series** of U. S. atomic tests on Eniwetok Atoll, begun May 26, were completed.

5. **Rachel Crothers,** 78, famous American playwright, died in Danbury, Conn.

6. **Vito Genovese,** alleged chief of U. S. racketeers, was arrested at his New Jersey home, charged with dealing in narcotics.

7. **Nine U. S. Air Force** men, whose transport plane had been shot down over Soviet territory June 27, were released unharmed on Iranian-Soviet border.

8. **Pres. Eisenhower** and wife flew to Ottawa, Can., for a three-day state visit.

9. **Pres. Eisenhower** publicly defended U. S. trade and investment policy in Canada.

10. **Returns from national** election in Finland gave only 50 out of 200 seats in the Finnish Diet to the Communists.

11. **Swiss government** announced its intention of equipping its army with nuclear weapons, without renouncing its traditional neutrality.

12. **Adlai Stevenson** and party arrived in Leningrad for a 3-week tour of the U.S.S.R.

Princess Margaret began an official tour of Canada.

13. **Premier de Gaulle** offered Algeria a leading role in a new federal system linking France with overseas dependencies.

14. **Arab nationalist** group overthrew Iraqi government, killing King Faisal, Premier Nuri al Said, and other officials.

U.N. Security Council was called into session to study Mideast crisis.

15. **U. S. Marines** were landed in Lebanon, at request of Pres. Chamoun, who claimed the country's existence was threatened.

King Hussein of Jordan proclaimed himself head of the Iraq-Jordan Federation.

16. **Under-Sec. of State Robert Murphy** was appointed Pres. Eisenhower's special political representative in Mideast.

More Marines were put ashore on Lebanon's beaches.

17. **British forces** were flown into Jordan at request of King Hussein.

Goldfine hearings involving Sherman Adams, Presidential aide, continued in Washington.

18. **Premier Nasser,** after visiting Tito of Yugoslavia, flew to Moscow for conferences.

19. **Great Britain** landed commandos in Libya, reinforced garrisons in Kuwait and Aden areas.

20. **Jordan severed relations** with the United Arab Republic because of latter's recognition of new Iraqi government.

21. **U.N. Security Council** continued discussion of Mideast crisis.

Commerce Sec. Weeks released a statement defending Sherman Adams' integrity and charging Adams had been unfairly maligned.

22. **U.N. Security Council,** after week's deliberation, failed to agree on action; emergency session of General Assembly was called.

23. **Four women and 10 men** were named by Queen Elizabeth as lifetime peers to sit in the House of Lords.

Attempt led by Army staff officers to overthrow the provisional Venezuelan government failed.

24. **British governor** of Cyprus reported continued strife on island, with 95 persons killed since early June, while Greek delegate at U.N. protested mass arrests and tightened control.

25. **A $2 million program** to promote the union label as an anti-racket weapon was announced by the International Ladies Garment Workers' Union.

26. **U. S. Army shot fourth satellite,** Explorer IV, into orbit from Cape Canaveral, Fla.; weighing 38.43 lbs., it was heaviest U. S. satellite.

27. **Lt. Gen. Claire Lee Chennault,** 67, World War II Flying Tiger Commander, died in New Orleans of lung cancer.

28. **Pres. Eisenhower** asked Congress to increase statutory debt limit permanently from $275 billion to $285 billion, and to add a $3 billion temporary increase, to $288 billion.

29. **Premier de Gaulle** presented his draft constitution to a consultative committee in Paris.

30. **A bill to establish** the National Aeronautic and Space Agency (NASA) was signed by the President.

Rebels who tried to seize control of Haiti were wiped out by government forces.

Orval Faubus won a 3rd term as governor of Arkansas.

Red China forbade trips by foreign diplomats beyond a 12-mile limit from Peiping.

31. **AEC semi-annual report** declared atomic weapons had become more efficient.

Gen. Fuad Chehab was elected president of Lebanon to serve a 6-year term.

AUGUST						
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AUGUST . . .

1. Missile-borne nuclear device was detonated in Pacific as part of current test series.

Mike Stepovich, Alaska's governor, resigned to run for U. S. Senate on Republican ticket.

Arthur S. Fleming became Secretary of U. S. Department of Health, Education, and Welfare.

2-4. U. S. forces in Lebanon were increased to a total of 14,300, with the landing of a tank battalion and service crews.

3. Atomic submarine *Nautilus* made the first undersea crossing of the North Pole.

Khrushchev and Mao Tse-tung issued a joint communique from Peiping expressing agreement on Mideast policy and demanding withdrawal of British and U. S. troops from that area.

4. Pro-Greek Cypriot rebels made a truce with British and Turks.

Chehab announced his first aim as president of Lebanon would be withdrawal of U. S. troops.

5. Crop surpluses in U. S. were predicted for another 5 years.

U. S. and U.S.S.R. agreed to refer Mideast crisis to General Assembly, after failure of plan for summit parley within Security Council.

6. Sec. of State Dulles and Pres. Kubitschek of Brazil signed a declaration on plans for regular meetings of 21 American presidents.

Herb Elliott of Australia set the mile-run world record in Dublin, in 3 min. 54.5 sec.

Nationalist China ordered state of emergency in Quemoy and Matsus following increased Communist activity on mainland.

7. Alberto Lleras Camargo was inaugurated for a 4-year term as president of Colombia.

Adlai Stevenson confessed failure in his attempts to get the U.S.S.R. to pay royalties to U. S. authors.

9. In policy statement circulated in U.S. embassies abroad, American determination not to recognize Red China was made clear.

10. U.N. scientific committee on atomic radiation unanimously agreed that nuclear test fallout was a threat to human health and heredity.

11. Reciprocal trade bill was passed by House and Senate, extending agreements 4 years.

12. Red Chinese began bombardment of Quemoy Island with 90 MIG 17's.

U. S. continued nuclear test series in Pacific.

13. Pres. Eisenhower presented to U.N. General Assembly opening session his 6-point program for preserving peace by extended economic aid.

14. Jean F. Joliot-Curie, French nuclear physicist and Nobel prizewinner, died in Paris.

KLM (Dutch) plane bound for New York crashed in North Atlantic, killing 99 persons aboard—the worst air disaster involving a single commercial plane.

15. Premier Khrushchev reiterated that U.S.S.R. was ready to pledge "jointly with Britain and U. S. not to use nuclear weapons under any conditions."

16. U. S. State Dept. reported that about 400 Soviet citizens had visited the U. S. in 1958 under cultural exchange agreement.

17. First confirmed attempt to place a missile in orbit around the moon, made at Cape Canaveral, Fla., failed.

U.S.S.R. agreed to equip Red China with nuclear weapons, missiles, and 4 nuclear reactors.

18. U. S. Court of Appeals barred delay in Little Rock school integration, reversing Fed. Dist. Judge Lemley's grant of 2½ year cooling-off period.

19. Triton, largest known submarine and 8th atomic sub built by U. S., was launched at Groton, Conn.

20. First shipment of U. S. arms to Iraq since military coup was reported.

21. Arab states advanced a plan at U.N. involving U.N. forces to guard borders of Lebanon and Jordan and early withdrawal of U. S. and British troops.

22. U.N. voted to adopt Arab plan for seeking a Mideast settlement.

23. Rioting students in Mexico City seized buses in protest against increased fare.

23-28. Red Chinese stepped up shelling of Quemoy.

24. Congress adjourned after setting peacetime spending record.

Johannes G. Strijdom, prime minister of South Africa and leader of white supremacy party, died at Capetown.

Race riots occurred in Nottingham, Eng., in protest against West Indian immigration.

25. Harlow Curtice retired as Gen. Motors head, to be succeeded by Frederic C. Donner.

26. Statehood was approved by a 5-1 margin in a special election in which 35,000 Alaskans voted.

Gen. de Gaulle concluded a trip through French Africa at Dakar, where he was greeted by jeering crowds.

Algerian terrorist attacks in France on police and civilian targets resulted in 7 deaths and many wounded.

27. Dag Hammarskjold began a series of conferences with Mideast leaders.

Pres. Eisenhower told news conference that offshore islands were more important to Formosan defense since Chi-

ang had deployed one-third of his forces to the islands.

28. U. S. Supreme Court met in special term to hear arguments on continuance of racial segregation in Little Rock schools.

29. American forces in Formosa area were reinforced, as Communists threatened early invasion of Quemoy.

30-31. Wilbur M. Brucker, U. S. Army Sec., and Gen. Isaac D. White, Pacific commander, conferred with Chiang on Formosa.

SEPTEMBER						
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SEPTEMBER . . .

1. Britain defied a new 12-mile offshore fishing zone claimed by Iceland.

2. Hendrik F. Verwoerd was elected Prime Minister of the Union of South Africa at Capetown.

2-3. McClellan rackets committee focused on Hoffa and Gibbons in investigation of Teamsters' union activities.

4. Frank S. Hogan, New York, received the Democratic and Liberal Party nominations for U. S. Senate.

Gen. de Gaulle made public the details of new constitution in a speech in Paris.

5. Lebanese rebels against Chehab government halted general strike; the U. S. made a grant of $2.5 million to Lebanon.

Forty-five lives were lost when a New Jersey Central train went through an open drawbridge into Newark Bay.

6. Chou En-lai asked that direct ambassadorial talks with U. S. be resumed, to seek Far East solution.

7. A coup led by two ousted army officers against provisional Argentine government failed.

8. Gov. Edmund S. Muskie, Dem., 44, won a seat in U. S. Senate, defeating incumbent Sen. Frederick G. Payne; Democrats retained the governorship.

9. Results of primaries in many states foreshadowed further Democratic victories in November.

10. Death rate in U.S. for year ending in July was 9.7 per thousand, highest in 7 years; due to Asian flu epidemic, according to U. S. Census Bureau.

11. Pres. Eisenhower declared U. S. would block Red invasion of offshore islands to defend principle that aggression must be repelled.

Robert W. Service, Klondike poet, died in France at 84.

12. U. S. Supreme Court unanimously ordered resumption of racial integration in Little Rock schools.

Warren Co. High School, Front Royal, Va., was ordered closed by Gov. J. Lindsay Almond, Jr.

14. Supplies and ammunition were landed on Quemoy when an LST boat ran through artillery fire from mainland.

15. U. S. and Red Chinese ambassadors began talks in Warsaw on Quemoy-Matsu problem.

16. Charles Malik, Lebanese Foreign Minister, was elected president of U.N. General Assembly.

17. U.N. again voted not to seat Red China.

Ford settled with United Auto Workers after 1-day strike, giving benefits estimated as equivalent to a 30-cent hourly increase.

18. Cuban rebel sources reported a successful landing of rebels on north coast; a rebel offensive lasting two days followed.

19. An Algerian government in exile was set up in Cairo, headed by Ferhat Abbas; it was recognized by Arab countries.

20. Rev. Martin Luther King, Negro leader, was seriously wounded in New York City by a Negro woman.

21. Mary Roberts Rinehart, 82, popular fiction writer, died in New York City.

Milwaukee Braves won their 2nd consecutive National League pennant, winning from Cincinnati.

22. Sherman Adams, Presidential aide, resigned under Republican pressure.

23. New violence broke out in Lebanon as Gen. Fuad Chehab was sworn in as president.

24. Foreign ministers of 21 Latin American republics met in Washington for informal talks.

25. Pres. Eisenhower warned school closing could be disastrous to nation.

26. Navy scientists fired their 7th Vanguard satellite-launching rocket at Cape Canaveral, but its sphere did not go into orbit.

Gen. Ne Win took over control of Burmese government in a bloodless transfer of power.

American yacht *Columbia* successfully defended America's Cup sailing event by defeating British *Sceptre,* 4 races to none.

27. Gen. Wilton B. Persons was appointed to replace Sherman Adams.

27-28. Typhoon Ida struck Japan, killing at least 615 persons; Hurricane Helene hit North Carolina coast with heavy loss of property.

28. France voted by a 4-1 margin to accept the new De Gaulle constitution.

29. Guinea, French West Africa, voted against new constitution, and was declared independent of France.

U. S. Supreme Court ruled that states could not use "evasive schemes" to avoid school integration.

30. N.Y. Times disclosed that State Dept. mail was 80 per cent against defense of offshore Chinese islands.

OCTOBER						
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OCTOBER . . .

1. **U.N. Secretary Dag Hammarskjold** urged U.N. be given control of atomic test monitoring system resulting from East-West agreement.

2. **Army took power** in Burma, in a bloodless coup, with new leader, Gen. Ne Win, pledging neutralist foreign policy.

3-4. **Pres. Eisenhower** underwent a physical examination and was found to be in fine health.

5. **Clinton, Tenn., High School** was almost destroyed by bomb explosion.

6. **Atomic submarine** *Seawolf* set undersea record by staying submerged for 60 days.

7. **Pres. Eisenhower** appointed Judge Potter Stewart, 43, to replace Justice Harold Burton, retired, on Supreme Court.

Pres. Mizra, Pakistan, dissolved parliament, declared martial law, and named Gen. Ayub Khan as head of armed forces.

8. **Gov. Orval Faubus** announced a nationwide appeal for funds to carry on segregated schools.

9. **Pope Pius XII**, 82, died at Castel Gandolfo, Italy.

10. **Gen. de Gaulle ordered** French officers to quit political organizations in Algeria.

11. **U. S. Air Force launched** a Thor Able rocket from Cape Canaveral with instrument payload; its peak altitude was 79,243 mi.

11-14. **Explosions damaged** Jewish synagogues in Atlanta, Ga., and Peoria, Ill.

13. **Chinese Reds extended** Quemoy truce for another two weeks.

14. **Tunisia severed** relations with U.A.R.

Fed. Reserve Board increased margin requirement for stock market transactions to 90%.

15-28. **U. S. conducted** a series of nuclear bomb tests in Nevada.

17. **Hungarian Ex-Dep. Premier Karoly Kiss** was among 65 persons killed in Soviet airliner crash.

18. **Britain announced** delivery of small arms and military aircraft to Sudan.

19. **Brussels World's Fair** closed, after an estimated 42 million persons had visited it.

20. **Sec. of State Dulles** arrived on Formosa for talks with Chiang Kai-shek.

21. **Martial law** was declared in Bolivia, following riots caused by falling price of tin.

23. **U.S.S.R. announced** loan of about $100 million to finance Aswan High Dam.

A coal mine disaster in

1958 CALENDAR

Nova Scotia brought death to 74 men.

24. Sec. of State Dulles said U. S. would not lend military or logistic support to Nationalist Chinese for mainland invasion.

25. U. S. election campaign went into its final phase, with Pres. Eisenhower assailing Democratic "spenders."

Cho Bong Am, defeated South Korean presidential candidate, was sentenced to death for espionage.

28. Cardinal Roncalli of Venice was elected Pope, choosing the name of John XXIII.

29. Zoe Akins, prizewinning novelist, died in Los Angeles.

30. Rose Macaulay, British novelist, died in London.

31. United States, Britain, and U.S.S.R. began nuclear test ban talks in Geneva.

NOVEMBER						
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NOVEMBER . . .

1. In 11 Southern states, Negro registered voters rose to 1,266,488.

2. Ex-Pres. Mirza of Pakistan left his country for exile in Britain.

3. Andres Rivero Aguero was elected president of Cuba, in an election boycotted by anti-Batista elements.

Jorge A. Rodriguez was elected president of Chile.

4. The Democrats extended their control of Congress through nationwide election victories.

5. Nelson Rockefeller's success in the race for the governorship in New York put him among the presidential possibilities.

6. Author Boris Pasternak stated his acceptance of the Nobel Prize had been an error.

7. Marooned on a floating ice island for 6 days, 20 men of an IGY Arctic team were rescued by U. S. Air Force plane.

8. Attempt to send the Air Force Pioneer vehicle into orbit around the moon failed.

9. Scandinavian delegates met in Oslo to discuss a Nordic common market and customs union.

Novelist Dorothy Canfield Fisher died in Arlington, Vt.

10. Nobel Prize for Peace was given to Father Henri Pire, Belgian, of the Dominican order, for his aid to displaced persons.

U.S.S.R. called for Allies to leave West Berlin, as Soviet forces were ending their occupation of East Berlin.

11. Ferhat Abbas, head of Algerian provisional government, asked France for a cease-fire.

12 A West Berlin statement declared its freedom was threatened by abrogation of 4-power Berlin statute by U.S.S.R.

13. Sec. of State Dulles said China courted disaster by its efforts to "create a vast slave state" of agricultural communes.

14. Pres. Eisenhower authorized Agriculture Sec. Benson to barter surplus farm products for an expanded list of needed strategic minerals.

A new 7-year plan to increase industrial production was announced in Moscow.

15. Novelist Samuel Hopkins Adams, 87, died in Beaufort, S.C.

Actor Tyrone Power, 44, died in Madrid during filming of "Solomon and Sheba."

15-19. Gales and blizzards in Rocky Mountain states caused at least 34 deaths.

17. New York's major orchestras, Broadway theaters, radio, and TV networks were accused of discriminating against Negro musicians.

18. Anti-Peronist Vice-Pres. Gomez of Argentina was forced to resign, after being accused of plot against Frondizi regime.

19. In Geneva, East-West talks on preventing surprise attacks and banning A bomb tests continued.

21. Mel Ott, 49, of baseball's Hall of Fame, died in New Orleans as a result of an auto accident.

23. Ghana and Guinea agreed to confederate as a nucleus to an eventual all-African union.

24. Following strikes of other lines, Eastern Airlines, the nation's largest, was struck by machinists and flight engineers.

25. In Alaska's election, Democratic candidates won all major offices.

Vice-Pres. Nixon and wife arrived in London for 4-day state visit.

26. De Gaulle's party was the outstanding victor in the French general election.

27. Japanese Crown Prince Akihito's engagement to a commoner, Michiko Shoda, was announced.

28. Atlas ICBM was successfully flown its full range of about 6,325 miles.

29. East German leader Walter Ulbricht announced that a Western attempt to renew airlift would be regarded as a military threat.

DECEMBER						
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DECEMBER . . .

1. In a fire at Our Lady of the Angels parochial school, Chicago, 89 children and 3 nuns lost their lives.

Sir Hubert Wilkins, 70, Arctic explorer, died in Fra-

mingham, Mass., of a heart attack.

Mexico inaugurated a new president, Adolfo Lopez Mateos.

2. College and university enrollment in the U. S. totaled 3,258,556 at the start of the current school year, 6.2% ahead of previous year.

3. Pres. Eisenhower effected a compromise in dispute over efforts of new space agency to take over Army space scientists and facilities.

TWA airline strike was settled.

4. Ousted dictator Rojas Pinella of Colombia was arrested for plotting a coup against the government.

6. Pres. Eisenhower ordered the setting up of a National Science Service, under terms of 1958 Education Act.

U. S. Army failed in 4th attempt to send rocket to moon, but useful data was returned.

7. Reds polled less than 2% in West Berlin municipal elections.

8. Romulo Betancourt was elected president of Venezuela.

Tris Speaker, famous ball player, died at 70 in Hubbard, Tex.

9. Gen. Ivan Serov was removed as Soviet state security chief.

10. Unemployment in U. S. was holding steady at about 3.8 million.

11. Civil Rights Commission heard complaints of Negroes not allowed to vote in Alabama.

12. New York newspaper deliverers' union called a strike, thus closing down nine New York City dailies.

13. Encased in a Jupiter missile rocket fired from Cape Canaveral, a small monkey was sent into space.

14. All-Africa People's Conference concluded meetings in Accra.

15. Iraqi mobs in Baghdad rioted against the presence there of U. S. envoy, William Rountree.

17. Mao Tsé-tung retired as Red Chinese government head, but remained Communist party chief.

18. Atlas missile weighing 4 tons roared into orbit from Cape Canaveral, and transmitted messages back to earth.

NATO countries issued statement that they stood firm on Berlin issue, as they concluded 3-day Paris conference.

19. Deputy Premier Anastas Mikoyan of U.S.S.R. will visit the United States in January.

20. Atlas satellite received 7 messages from earth and sent them back again, heralding a new era in space communication.

21. De Gaulle, with about 79% of the 81,000 electoral votes cast, became president of France.

22. Striking American Airline pilots grounded thousands of pre-Christmas travelers.

23. Pres. Nasser assailed Communists in Mideast, saying they were trying to bar Arab unity.

24. Pres. Eisenhower proposed to decrease government spending in next fiscal year.

25. Highway fatalities mounted rapidly with the home-for-Christmas rush.

26. The U.S.S.R. adopted a new, more liberal penal code.

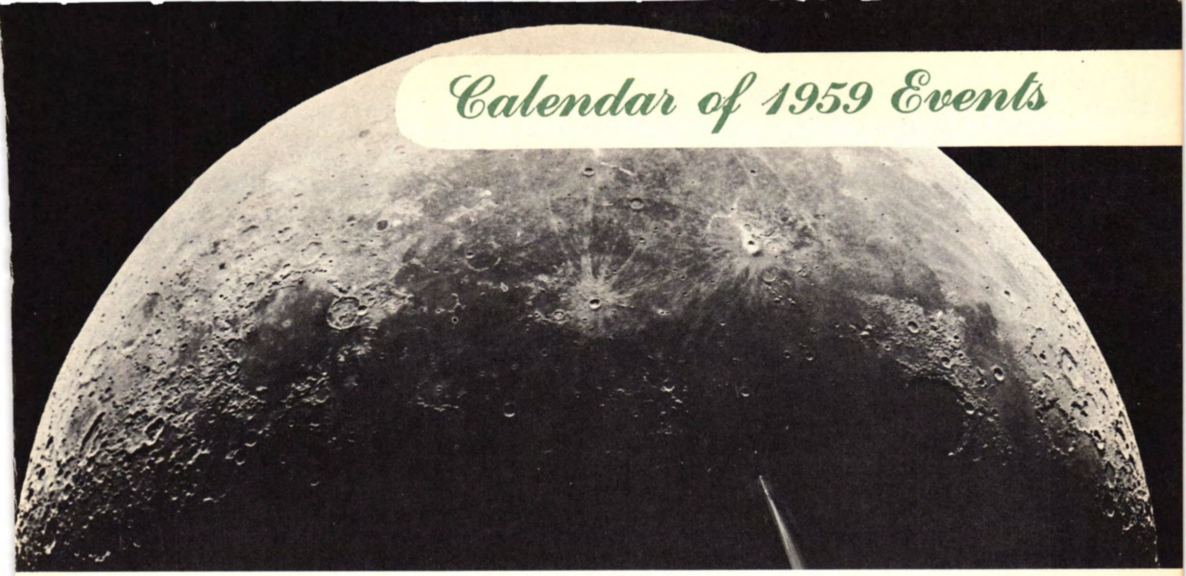
27. Pres. de Gaulle devalued the franc from 420 to 493.7 to the dollar. Other European countries liberalized their financial policies.

29. New York news deliverers' strike ended.

30. Civil war in Cuba reached a climax, and Batista sent some of his children out of the country.

31. Economists forecast a prosperous 1959.

Calendar of 1959 Events



JANUARY . . .

1. New Year's Day.
Independence Day. Haiti.
Rose Bowl Football Game. Pasadena, California.
Sugar Bowl Football Game. New Orleans, La.
Orange Bowl Football Game. Miami, Fla.
Cotton Bowl Football Game. Dallas, Tex.
350th Anniversary of Settlement of Bermuda begins. Through December 31.

5. Twelfth Night.

6. Epiphany Day.

13. Stephen Foster Memorial Day. By Presidential Proclamation.

16. Arbor Day. Florida.

18. World Religion Day. Sponsor: National Baha'i Assembly.
National YMCA Week begins. Sponsor: National Council of YMCA's.
National Jaycee Week begins. Sponsor: United States Junior Chamber of Commerce.

19. Robert E. Lee's Birthday.

24. Jewish Musical Festival begins. National Jewish Music Council.

25. Youth Week 1959 begins. Sponsor: National Council of Churches of Christ.

FEBRUARY . . .

2. Ground Hog Day. Belief that if the ground hog sees his shadow when he emerges on this day, that six more weeks of winter will ensue.

8. National Crime Prevention Week begins. Sponsor: The National Exchange Club.

10. Mardi Gras. New Orleans. Louisiana, and certain Alabama and Florida cities.
Shrove Tuesday. The day before Ash Wednesday.

11. Ash Wednesday. Lent begins. Forty days to Easter Sunday not including Sundays.

12. Abraham Lincoln's Birthday. 1809-1865. Sesquicentennial of Lincoln's birth.

14. St. Valentine's Day.

15. Brotherhood Week begins. Through 22nd. Sponsor: National Conference of Christians and Jews.

21. National Future Farmers of America Week. Sponsor: Agricultural Education Branch, Office of Education, U. S. Department of Health, Education and Welfare.

22. George Washington's Birthday. 1732-1799.
Heart Sunday. Sponsor: American Heart Association.
Catholic Book Week begins. Through 28th. Sponsor: Catholic Library Association.

27. 1959 Easter Seal Campaign begins. Sponsor: National Society for Crippled Children and Adults.

28. National 4-H Club Week begins. Sponsor: U. S. Department of Agriculture, Federal Extension Service.

MARCH . . .

8. Girl Scout Week begins. Through 14th. Sponsor: Girl Scouts of the U.S.A.

14. Arbor Day. Oklahoma.

15. National Wildlife Week begins. Through 21st. Sponsor: National Wildlife Federation.

17. St. Patrick's Day.

22. Palm Sunday. Commemorates Christ's last entry into Jerusalem, when his way was covered with palms by the multitude.
Emancipation Day. Puerto Rico.

24. Purim. Jewish Holiday. Hebrew date, Adar Sheni 14, 5719.

25. Feast of the Annunciation. Celebrated in the Roman Catholic Church in commemoration of the message of the angel Gabriel to Mary that she was to be the mother of Christ.

27. Good Friday. Observed in commemoration of the Crucifixion.

29. Easter Sunday. Commemorates the Resurrection of Christ.

APRIL . . .

1. All Fool's Day.

6. National Boys' Club Week begins. Through 12th. Sponsor: Boys' Clubs of America.

12. Pan American Week begins. Sponsor: The Organization of American States.
National Library Week

1959 CALENDAR

begins. Sponsors: American Library Association and National Book Committee.

13. **Thomas Jefferson's** Birthday.

14. **Pan American** Day. Sponsor: Organization of American States.

22. **Arbor Day.** Nebraska.

23. **Passover,** First Day. Jewish Holiday. Hebrew date, Nisan 17, 5719.

26. **Confederate Memorial** Day. Legal holiday in Alabama, Florida, Georgia, Mississippi.

29. **Passover,** Last Day. Jewish Holiday, Hebrew date, Nisan 22, 5719.

MAY . . .

1. **Loyalty Day.** By Presidential Proclamation.

May Day. The first day of this month has been celebrated by many peoples for many reasons since early in the history of man.

7. **Ascension Day.** 40 days after Easter Sunday.

10. **Mother's Day.** By Presidential Proclamation.

Confederate Memorial Day. North Carolina, South Carolina.

National Girls Club Week begins. Through 16th. Sponsor: Girls Clubs of America, Inc.

16. **Armed Forces** Day. By Presidential Proclamation. Replaces former Air Forces, Army and Navy days.

30. **Memorial Day** or Decoration Day. By Presidential Proclamation.

Confederate Memorial Day. Virginia.

JUNE . . .

3. **Birthday of Jefferson Davis.** Commemorated in Alabama, Florida, Georgia, Mississippi, South Carolina.

Confederate Memorial Day. Kentucky, Louisiana, Tennessee.

Memorial Day. Arkansas.

12. **Shevuoth** Feast of Weeks. Jewish Holiday. Hebrew date, Sivan 6, 5719.

14. **Flag Day.** By Presidential Proclamation.

21. **Father's Day.** Sponsor: National Father's Day Committee.

JULY . . .

1. **Dominion Day.** Canada. Celebrates the confederation of Upper and Lower Canada and some of the Maritime Provinces into the Dominion of Canada on this date in 1867.

4. **Independence Day** or Fourth of July. By Presidential Proclamation. Commemorates Declaration of Independence from Great Britain, signed July 4, 1776. Legal holiday in all states and territories.

15. **St. Swithin's Day.** Rain for forty days hereafter when it rains on this day according to old belief.

AUGUST . . .

10. **Teen-Age Safe Driving** Roadeo begins. Through 13th. Sponsor: United States Junior Chamber of Commerce.

15. Assumption of the Virgin Mary. Greek and Roman Catholic churches celebrate her ascent to Heaven.

19. **National Aviation** Day. By Presidential Proclamation.

SEPTEMBER . . .

7. **Labor Day.** Celebrated in all states and territories as legal holiday. Sponsors: American Federation of Labor Congress of Industrial Organizations.

8. **National Child Safety** Week begins. Through 14th. Sponsor: American Safety League.

17. **Citizenship** Day. By Presidential Proclamation.

Constitution Week begins. Through 23rd. By Presidential Proclamation.

25. **American Indian** Day.

27. **Gold Star Mothers'** Day. By Presidential Proclamation. Sponsor: American Gold Star Mothers, Inc.

OCTOBER . . .

1. **National Employ** the Physically Handicapped Week begins. Through 7th. By Presidential Proclamation.

3. **Rosh Hashana** or New Year. Jewish Holiday. Hebrew date, Tishri 1, 5720.

4. **Fire Prevention** Week begins. Through 10th. Sponsor: National Fire Protection Association.

12. **Columbus Day.** Usually by Presidential Proclamation. Commemorates the landfall of Columbus in the New World on this day in 1492.

Yom Kippur or Day of Atonement. Jewish Holiday. Hebrew date, Tishri 10, 5720.

18. **United Nations** Week begins. Through 24th. Sponsor: American Association for the United Nations.

19. **National Bible** Week begins. Through 25th. Sponsor: Laymen's National Committee, Inc.

31. **Hallowe'en.** An ancient celebration thought by some to be of Druidic origin.

NOVEMBER . . .

1. **All-Hallomas** or All-Hallows or All Saints' Day.

National Children's Book Week begins. Through 7th. Sponsor: The Children's Book Council, Inc.

2. **All-Souls' Day.** Commemorates the faithful departed.

11. **Veterans Day** or Armistice Day. By Presidential Proclamation. All states except Virginia and Wisconsin.

26. **Thanksgiving Day.** By Presidential Proclamation. Commemorated in all states and territories.

DECEMBER . . .

8. **Immaculate Conception.** Roman Catholic Day of Obligation.

11. **Junior Chamber International** Day. Sponsor: Junior Chamber International, Inc.

25. **Christmas Day.** Celebrated throughout the United States, its territories and the rest of the Christian world.

26. **Chanukah.** Jewish Holiday. Hebrew date, Kislev 25, 5720.

31. **New Year's Eve.**

FLOWER ARRANGEMENT is but one of 900 classes available to adults through the Mott Foundation and the effort and planning of local educators in Flint, Mich.

ADULT EDUCATION

by ROBERT J. AHRENS, *Executive Director,* Adult Education Council of Greater Chicago

Lifetime Learning. Millions of out-of-school citizens are using their margin of leisure time to study. Their learning ranges widely — the English language, creative writing, world affairs, arts and crafts, industrial skills, how to be a good parent, and scores of other subjects. According to a recent survey, trade, business, and technical fields attracted about one-third of these mature learners, while the other two-thirds were interested in general education, civic and public affairs, home and family living, agriculture, and Americanization studies. Thirty per cent of them were over 45 years of age.

There is also a high percentage of adult students in neighboring Canada. More than a million persons, ten per cent of the total population, are enrolled in classes and studying subjects ranging from bagpipe playing to paperhanging, from Gaelic to golf. As in the United States, many adult education programs in Canada are conducted by the extension departments of the universities.

Varying Estimates. No one knows precisely how many adults are attending formal classes in the United States. Estimates made by various agencies on the number of adults engaged in some form of organized learning differ widely. The U. S. Office of Education estimates that some four million adults were enrolled in public school classes, more than a mil-

AN IMPRESSIVE PROGRAM in adult education is being carried out in Flint, Mich., with 41 schools lighted at night. This shows a class in typing for the blind.

lion took part in college and university evening and extension classes, two million in adult education activities in libraries, another million in private correspondence study courses, and seven million farm families were reached by agricultural agencies with their vocational programs.

There are, indeed, so many agencies engaged in so many activities in the field of adult education, that no truly accurate count has yet been made. The Committee on Education Beyond the High School, in its report to President Eisenhower, stated that "Until the gross deficiencies in [adult] educational reporting are remedied, all advisory work, all research, all educational planning throughout the country and all efforts by individual states, communities and institutions to devise effective actions will be severely handicapped." Some studies are now under way to find sensible ways to add and report figures of adults in credit courses, informal classes, discussion groups, film programs, on-the-job training, and the many other forms that adult education takes.

Coordinating Agencies. The number of these programs and agencies has grown to such an extent that many communities find it necessary to establish some sort of coordinating organization that serves as a clearing house to provide information about these activities. Many localities in America now have adult education councils which the public can contact for information, the oldest in continuous operation being The Adult Education Council of Greater Chicago, founded 35

ADULT EDUCATION

years ago. The newest is the Milwaukee Council for Adult Learning, formed in the spring of 1958. Many communities which do not yet have councils have found it wise to use the central public library as a source of public information and referral on their area's adult education programs.

More Professionals Trained. Another indication of the tremendous growth of adult education is the expansion of programs in our nation's colleges and universities for the training of more professionals to operate and supervise adult education programs. It has become important to recruit and train professional educators who will impart high standards to the field. Accordingly, more than a dozen of our nation's colleges and universities now offer courses in adult education that lead to the master's and the doctor's degrees. To help in this training, the University of Chicago received a grant of almost $3 million dollars this year to establish a Center for Continuing Education, the third such center in the United States. In making the grant, the W. K. Kellogg Foundation commented that the field of adult education was entering a period of huge expansion.

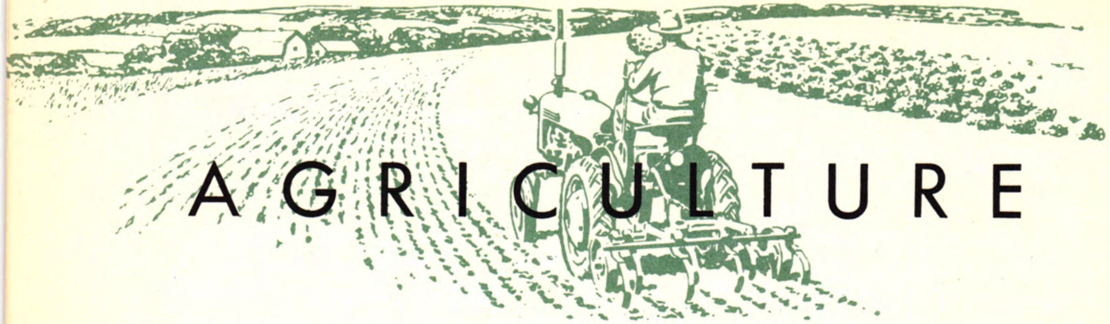
Educational television is another new form of adult education in America. The first educational television station was established in Ames, Iowa, and began to program on February 21, 1950. Today 34 educational television stations are in operation and more are planned in various communities. An Educational Television and Radio Center in Ann Arbor, Michigan, serves as a network headquarters and produces films for use by all of the educational stations in what is called a "film network."

Executive Retreading. Equally new in the field of adult education are the many programs of liberal education now being offered or supported by business and industry. For many years business and industry has run on-the-job training courses for employees. In recent months, it has felt that many of its top executives, while trained and educated in specialized professional skills, needed more background in liberal education (the arts and humanities) in dealing with men and problems of human relations. There have been a number of experiments in these new programs, some of which have involved leaves of absence for as long as three to six months, while businessmen studied books and took courses in everything from politics to poetry.

Many thoughtful educators claim that leadership qualities in men can be achieved best through continuing programs of liberal education and, in fact, the Fund for Adult Education of the Ford Foundation (the leading American foundation supporting experiments and programs in adult education) has said that this is the area in which it sees the greatest need and in which it will concentrate its efforts.

Art of Living. The Center for the Study of Liberal Education for Adults, a group that does research in adult education for America's colleges and universities, says that the move toward more courses and programs in liberal education is a national trend. The dominant kind of adult education offered in America has been and still is, however, of a professional and vocational nature, designed to help people in the skills of earning a living rather than in the art of living a fuller life.

Even though an accurate count of the number of Americans engaged each year in adult education awaits the results of studies under way and others that are contemplated, adult educators know that many millions of Americans are improving their education through programs now being offered, and they are readying new programs and more personnel to help meet the demand they expect from additional millions tomorrow.



AGRICULTURE

Bursting Bins. Better fertilizers, better seeds, new labor-saving machinery, along with favorable growing weather, combined to produce an embarrassing abundance throughout the Midwest and Plains states in 1958. In other parts of the country, with the exception of Florida, agricultural production was also high. Florida's citrus crops were badly damaged by the unseasonably cold weather of the winter of 1957-1958.

The 1958 output of field crops was 10 per cent higher than the previous record, set in 1948. With less land under cultivation, with fewer workers on the land, the production curve continues to rise. Since government surpluses of wheat and grain feeds are already high, storage space is again a problem. Traveling in the Midwest, one frequently sees acres of tremendous metal bins, which the Department of Agriculture has filled with grains—as if in preparation for a famine. But no famine is in sight.

Wheat. The 1958 wheat crop was estimated at 1,446,000,000 bushels. Average production per acre was 27 bushels. The average annual production for the preceding ten years was only 17.7 bushels per acre. Improved techniques may be expected to boost this record still further.

Corn. More than 3,000,000,000 bushels of corn was grown in the United States in 1958—half the world's production. American farmers averaged 46.8 bushels per acre, and today's efficient farmer puts in only six minutes of labor for every bushel! This fabulous product is closely associated with American Indians, who were themselves excellent cultivators, with their custom of placing dead fish in each corn hill to give the sprouting grain a good start. Corn thrives in many different environments. It is now grown around the world, bred to various climatic conditions. Huge crops flourish in Brazil, Mexico, China, Italy, and South Africa. In the Soviet Union, corn production has increased four-fold since 1950.

Today's great production increase is due to the production and distribution of hybrid seed corn. Some varieties of corn stand 16 feet high, others no more than two. By inbreeding and crossing strains, modern science has given farmers seed to suit their land and climate, as well as seed that produces more corn on less land. Last year (1957) the farmers of the world harvested the biggest crop in history—6,615,000,000 bushels. A similar crop was predicted for 1958.

Perennial Controversy. The United States farm price support program is a topic which, through more than two decades, has aroused sharp controversy. Its complexities baffle the experts, and every farmer has his own idea of its usefulness and effectiveness. As for laymen, they are likely to be completely at sea about the whole question. It is they, however, who must foot the bill. And it is no small one. It has cost taxpayers billions of dollars up to the fiscal year ending last July. There has been a rise of $1.5 billion over the estimate of cost made in January, 1958. This is the big-

AIR-CONDITIONED COMFORT on a harvester-thresher. The technical revolution on the farm means more than making things comfortable for the farmer. Through the use of new fertilizers and insecticides, bigger crops are grown on fewer acres. Limiting acreage is no panacea for the farm's fertility. A corn referendum among the farmers of the Midwest in November returned a 2.4 to 1 vote for the Benson plan for reducing government corn acreage control.

gest single increase in the $12 billion deficit in the national budget.

Facts and Theories. Puzzled laymen may ask, if 95 per cent of the nation's economy can get along without Federal subsidy, why should farming be supported—both in the matter of price regulation and the assurance of a market? And if farming must be supported, why does the farm program apply only to the growers of half a dozen different products? Or, again, why not give aid and support to poor farmers, or those trying to run "family type" farms, instead of extending support to all those who raise the protected products—including rich, non-resident farmers with thousands of productive acres?

The farm-price support program dates back to the 1930's, when the low prices of the depression years worked extreme hardship on many, perhaps most, farmers. A price support program was set up and the farmers were allowed to sell their surplus to the Government. With various adjustments from year to year, from administration to administration, the plan has been continued. And the surpluses have been piling up. World War II and the Korean War, by creating a greater foreign demand for foodstuffs, lowered the surpluses for a time. Since the mid-1950's, they have again been climbing. Like the widow's mite, no matter how much is given away, there's much left.

Secretary of Agriculture Ezra Taft Benson has worked for a gradually diminishing support program. He succeeded in getting through Congress in 1958 a farm bill providing for lower price supports and larger acreage allotments for cotton and rice. There is a prospect of no Federal controls at all for corn. Thus the trend is away from quotas and supports. A guaranteed market, even with prices as low as 60 to 75 per cent of parity, stimulates over-production, and heavy governmental expense to buy up the surplus and store it.

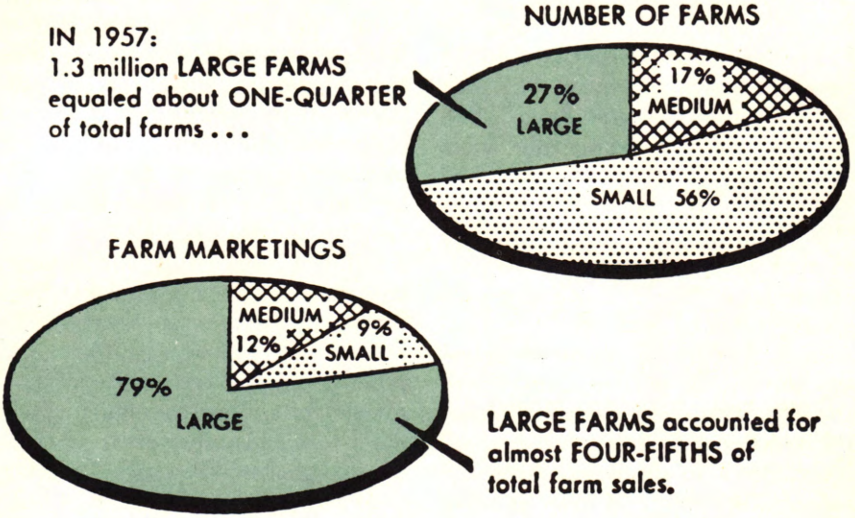
Secretary Benson realizes all too well the inequities and irrationalities of the system. It has often worked to the benefit of large growers. Under the support-and-quota plan, they can take poorer land out of production and be well paid for it. It is safe to predict that the farm program will be with us for many a year, and whatever adjustments are made, the result will not please everyone. The expert with the over-all view, the Secretary of Agriculture, has a difficult role. His lot is not a happy one.

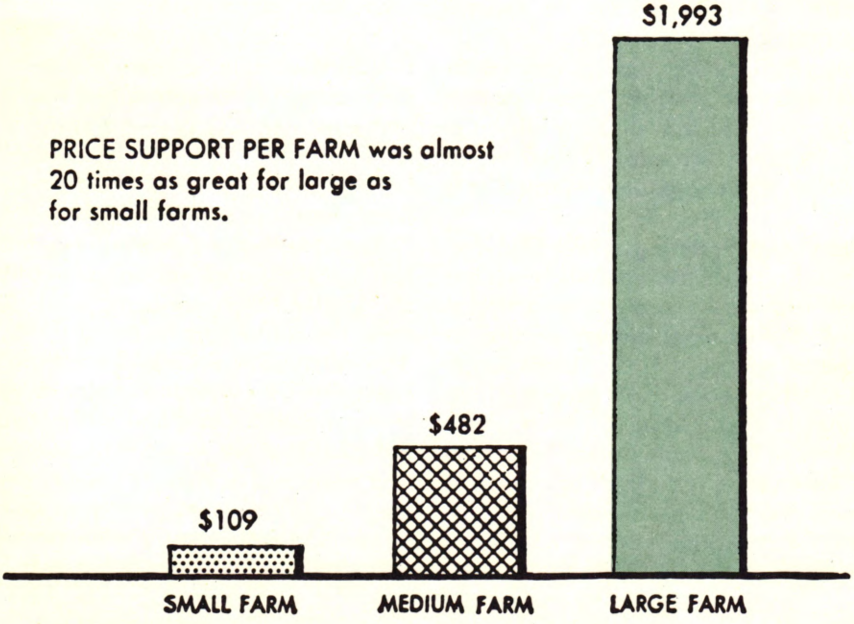
Farmers are polled on the subject from time to time, and they usually vote in accordance with their own interests. Like the members of Congress, they are reluctant to face the fact that the farm economy must be reduced and marginal farmers transferred to nonfarm activities. Recent figures show that the trend is well under way: 42 per cent of workers living on farms today are engaged in some type of work away from the farm.

Pests and Pesticides. Chemical warfare against insects which injure or destroy crops becomes ever more deadly, and many pests are now pretty completely under control. The Hessian fly, which came into the country hidden in a mattress in 1776, has been a persistent destroyer of wheat. Ordinary insecticides have been almost useless against it, for the adult fly does not eat and the larva eats only *inside* the wheat leaf sheath—where it is well protected from poisonous sprays and dusts.

A new type of insecticide called "systemic" has been developed. Plants treated with systemics are death to aphids, mites, and, possibly, Hessian flies, when they attack during the early growing season. The systemic poisons, sprayed into the soil, are taken up by the roots and absorbed. The whole plant undergoes chemical changes and is toxic for a short

SMALL FARMERS DERIVE LITTLE BENEFIT FROM PRICE SUPPORT





Source: U.S. Dept. of Agriculture

period. After a few weeks the plant becomes completely harmless. Some of the systemic chemical poisons are mixed with fertilizer and sown with the seed.

Grasshoppers. Grasshoppers, often called locusts, have been one of the farmer's worst plagues since Biblical times. Yet they are a favored food in some regions. In North Africa they are today an important source of protein. The people of Tunisia sacked and dried 3,000 tons of grasshoppers during the short passage of a migratory swarm recently. In Japan, Mexico, and the Philippines they are regarded as a delicacy. They are to be found on the shelves of some delicatessen stores in the United States—although they don't "catch on."

Voracious feeders, an army of grasshoppers advancing over a field leaves nothing but bare earth behind. During hot dry weather they sometimes eat pasture grass down to the roots, denuding the soil of all cover and thus starting erosion. Damage to crops from these greedy insects runs into millions, but they have been marked for destruction. No less than seven chemical preparations are on the market for the control of grasshoppers.

Some of the modern insecticides are so potent that two ounces spread evenly over an acre will kill all harmful pests. Naturally great care must be used in the application of these poisonous dusts and sprays.

Pellets and Pelleting. Like food for humans, feed for farm animals is coming in more convenient, neater, less wasteful form. A development almost parallel to the rise of packaged frozen foods is the trend to all-purpose, ready prepared food for animals in the form of pellets. Since World War II manufacturers of animal feed have been grinding up assorted kinds of hay and grains, adding some crude molasses, and various antibiotics and hormones, then pressing the mixture into cakes or pellets. The ingredients and the size of the pellets are dictated by the kind of animal for which the feed is intended, and its specific needs.

One astonishing thing has been noted by technologists who have been developing these feeds. Pellets made with inferior types of hay, even with some straw, bring good results. Two possibilities present themselves: either the pelleted food makes all the nutritional elements more easily available, or the animal is fooled into eating more of the prepared feed because it is easier to eat. Coarse or fine grinding of the material is an important detail. For dairy cattle, for instance, the hay should not be ground too finely, or cream production is lowered. Lambs, calves, and pigs fed on pellets gain weight rapidly and can be sent to market weeks earlier than those receiving rations in other forms. Another great advantage is the saving of storage space. Pelleting may even presage the dwindling of the haymow.

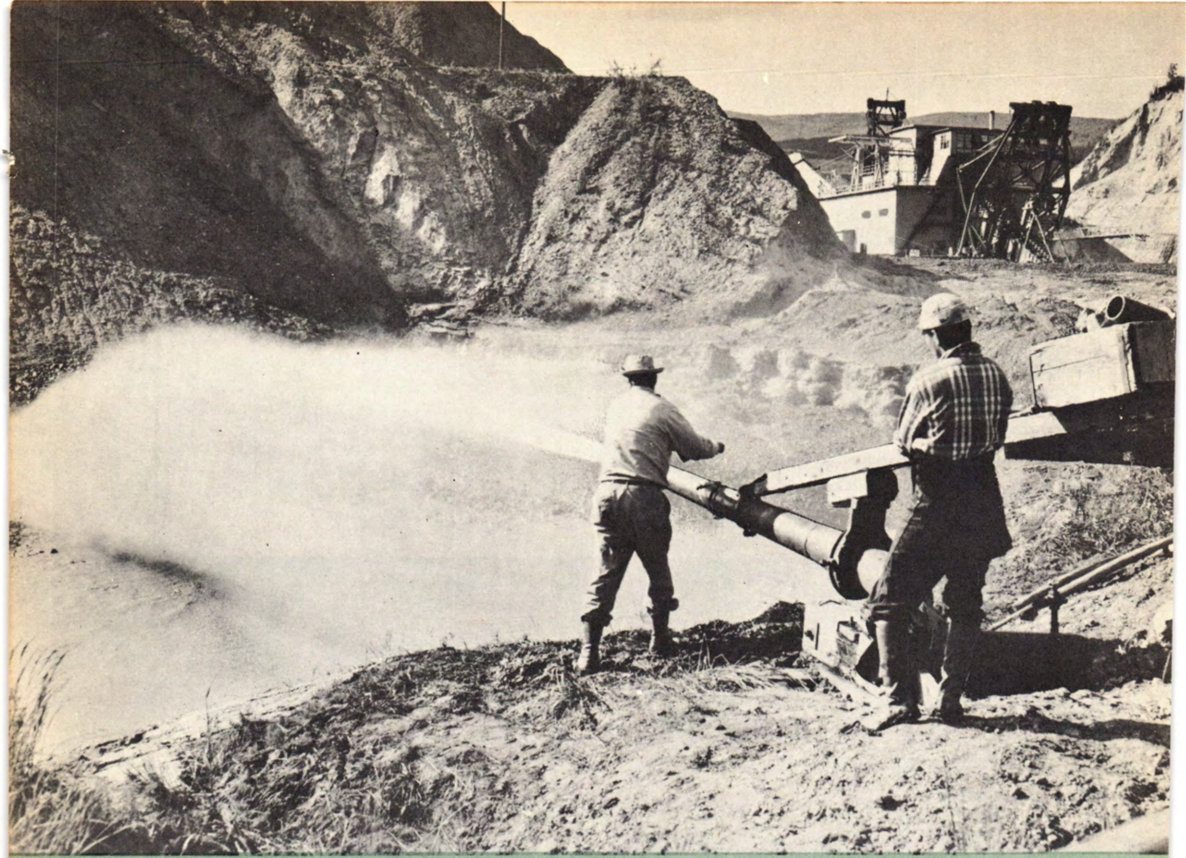
The newest development is that farmers are investing in pelleting machinery and "rolling their own" pellets. Naturally, only large scale farms can afford to buy the expensive machines. Pelleting is a fairly complex process, but the materials—save for the antibiotics, hormones, and possibly, molasses—are all at hand. In California, large machines designed for pelleting right in the field are saving many operations for the farmer.

Anti-Freeze Machines. Fog-making machines invented and manufactured in the United States are being used to preserve the coffee crop in Brazil from frost. The machine is a tank-like contraption, consisting of a gasoline engine, a pump, a centrifugal blower, and a steam generator that evaporates a combination of oil and water heavy enough to cling close to the ground and form a warm white blanket around each plant. One machine can protect about 200 acres.

ALASKA

What Statehood Means. To most of us Alaskan statehood means just another star in the flag. To Alaskans, the change is an important one. The far northern territory has now come of age and will direct its own destiny, instead of being dependent on the Federal Government. It will elect its own governing officers, write the laws, raise the revenues, plan for the future. Those in Congress who

ERNEST GRUENING, new Democratic senator from Alaska, is a former territorial governor who worked vigorously for statehood.



THERE'S STILL GOLD in Alaska, and with giant dredges to scoop up the gravel from creekbeds it can be recovered. Here, the miners wash away the top layer of frozen muck with a hydraulic hose.

opposed statehood thought that Alaska was not ready to carry the economic responsibilities of statehood.

The bill by which Alaska became a state contained some unusual provisions that were dictated by its unique situation and size. The United States reserves the right to withdraw almost unlimited areas from northwestern Alaska for defense purposes. So sparse is settlement in Alaska, that 99 per cent of its land belongs to the Federal Government. A great proportion will continue to be in the public domain. The new state may select 182 million acres for itself within the next 25 years, and another 800,000 within the next 50 years. If Alaska chooses to do so, it could pick extensive coal lands that the United States had earlier withdrawn from the public domain.

Capital, Not Covered Wagons. Alaskan leaders are now busy trying to attract investment capital to Alaska, to explore and develop, to start new industries. Alaska wants capital now, settlers later. The state's resources include iron, coal, petroleum, copper, nickel, and tin. Fish and forest products are the two main non-mineral exports. Single men will be drawn to Alaska to work for high wages in industrial plants and factories. Later there will be an influx of more permanent settlers and farmers. No trek of homesteaders is expected now. It takes money as well as courage to get a start. From $15,000 to $30,000 is needed to cover costs during the five-year period of proving up a 160-acre homestead.

Communication. New industries will promote the opening up of new means

of communication. In all Alaska there are fewer than 5,000 miles of highways. Only 1,200 miles of road are hard surfaced. During recent years the Federal Bureau of Public Roads has been blacktopping the major highway network that links Seward, Anchorage, Kenai, Valdez, and Fairbanks with one another and with the Alcan Highway. The new state will take over most of the road-making operations. Only 300 miles of the Alcan Highway is in Alaska. A 70-mile stretch of it will be paved shortly. Up to now, gravel, dust, mosquitoes, and the long distances between service stations have been its main drawbacks for touring motorists.

From British Columbia cruise ships carry passengers into Alaska by way of the beautiful inland passage. Steamship lines from Seattle and San Francisco carry cargo. The short Alaska Railroad handles freight and passengers from Seward to Fairbanks. Some local barge companies still operate up and down the Yukon River, once the main artery of Alaskan travel.

Most of those who visit Alaska and most traveling Alaskans use the airplane. Pan American, Pacific Northern, Northwest Orient, and Alaskan Airlines all offer service. Two foreign lines, Scandinavian Airlines and Air France make stops at Anchorage. With the trans-polar flights to Europe and the Orient becom-

FISH CANNERY at Port Walter. Fishing and fish-processing is one of Alaska's major industries.

ANCHORAGE, largest city in Alaska, is located on Cook Inlet. Military establishments lie to the left. The five empty blocks in the center, once a landing field, are to become a city park.

ing popular, Alaska will become known to more and more world travelers.

Defense Personnel. Alaska is the temporary home of nearly 50,000 military men and their families. Their presence has brought prosperity to parts of Alaska. The U. S. Army base and Elmendorf Air Force base at Anchorage account for about one-third of the city's population of 90,000. Here is the headquarters of the Alaska Air Command and a base of the Strategic Air Command.

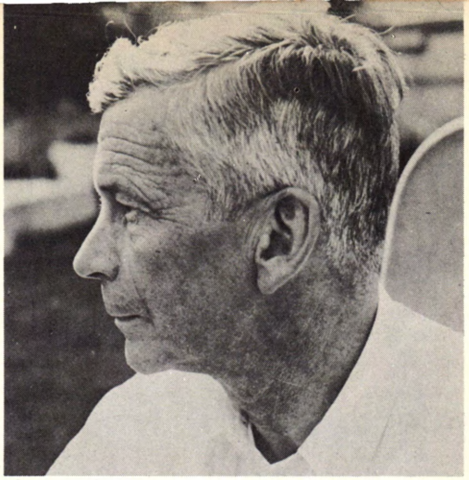
Education. New elementary schools have sprung up to accommodate the children of the military. Facilities for higher education are expanding. The University of Alaska just outside Fairbanks had 700 students last year and expects 1,000 within the next two years. Army and Air Force officers are sharing in Alaska's educational program as teachers of evening courses at the University. Summer school sessions, designed for teachers from other states, are attracting a full quota. A flight over the Pole is one of the features offered by the summer school.

The Methodists have dedicated a four-year liberal arts college at Anchorage, and the first building will be opened for classes in 1960. For 80 years the Presbyterians have operated a junior college at Sitka. Community colleges for adult education have been springing up in various population centers.

Official Steps. After Congress passed the statehood bill and President Eisenhower signed it into law, Alaska's governor Michael Stepovich called for a special election. On August 26, Alaska's citizenry voted overwhelmingly to enter the Union. On November 25, qualified voters elected their new governor, senators, and representative, as well as their state legislature.

Although Vice-President Nixon and Commerce Secretary Seaton campaigned in Alaska, the voting trend followed that of the rest of the country. Former Governor Ernest Gruening, Democrat, was elected senator in his race with Ex-Governor Stepovich. Democrat E. L. Bartlett won the other Senate seat, and Ralph Rivers, former Alaska attorney general, got the sole seat in Congress. William Egan, Democrat, became Alaska's new governor.

ACADEMY and INSTITUTE



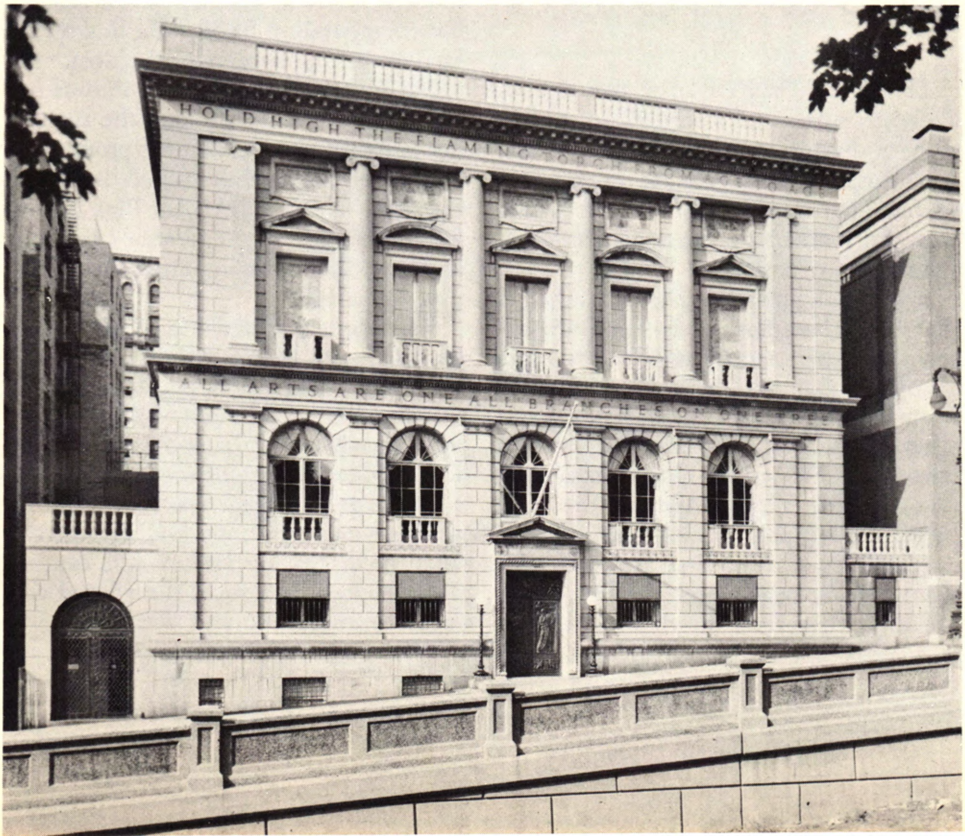
MARK VAN DOREN, poet and teacher, is President of the National Academy of Arts and Letters

BACK IN 1898, the American Institute of Arts and Letters was founded "for the furtherance of literature and fine arts in the United States." Its membership is limited to 250 citizens qualified by notable achievements in art, literature and music. Nominations for replacements of deceased members are screened by the departments of art, literature and music, then voted on by the whole body. The Institute is thus self-perpetuating.

A sort of upper echelon existing as a section of the Institute is the National Academy of Arts and Letters, created in 1904. Its 50 members, chosen from among the Institute's 250, are persons who have achieved unusual standing as composers, painters, sculptors, poets, novelists, architects. At present only two women are members of the Academy, the classical scholar and translator, Edith Hamilton, and the poet, Marianne Moore.

Both Academy and Institute confer medals, awards, and fellowships, and otherwise function to stimulate the arts. Honorary membership has been conferred on many foreign writers and artists.

ADMINISTRATION BUILDING of the American Institute and the National Academy of Arts and Letters, at 633 West 155th St., New York, N.Y.



Anniversaries

PILGRIMS AT LOURDES in February, 1958, pass beneath an arch along the street which leads to the grotto.

1858-1958

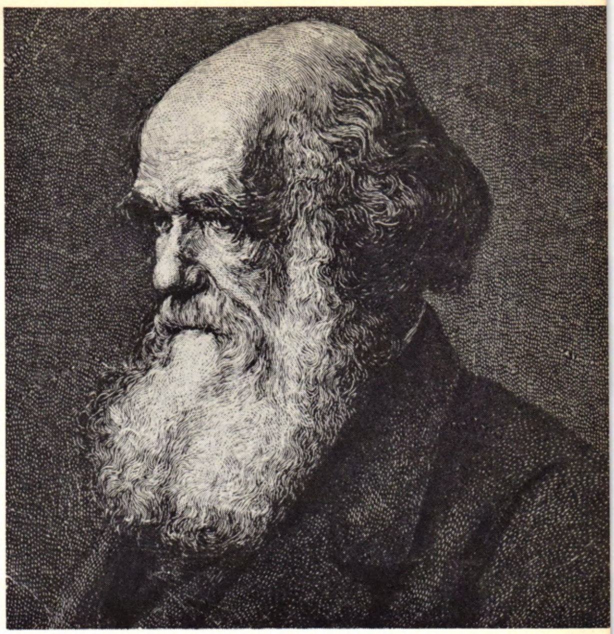
THE CENTENNIAL of the Roman Catholic shrine at Lourdes, in southwestern France, was observed in 1958. An unusually large stream of pilgrims visited Lourdes during the year, which was also marked by the dedication of a splendid new basilica.

It was on a bleak February day of 1858 that Bernadette Soubirous, child of poverty-stricken parents, was gathering sticks along the River Gave which rushes through the town. Having wandered close to the entrance of a small cave, Bernadette was suddenly transfixed by a vision of the Virgin Mary in the little grotto. Her report of this and 17 later appearances was at first received with skepticism by local churchmen. At length, however, they came to view these happenings, together with the welling up of a little spring inside the grotto, as miraculous. The waters of the spring came to have a reputation for healing that spread far beyond the borders of the area.

Meanwhile, Bernadette Soubirous had entered a convent, to spend the remainder of her life away from the prominence into which the revelations had thrust her. She died in 1879. In 1913, Pius X conferred the title of Venerable upon her, and in 1933 she was admitted to the company of saints.

Bernadette's retired life of prayer and service forms a strange contrast to the story of Lourdes as a pilgrimage place. Of the cures at Lourdes it can be said that even non-believers have observed things that medical science cannot explain. The commission of physicians that examines evidence and reports on findings operates with great circumspection and caution. To be regarded as such, the alleged cure must be immediate and permanent.

1858-1958



CHARLES DARWIN is regarded as the model scientific worker, one who observed acutely, recorded clearly, and analyzed brilliantly.

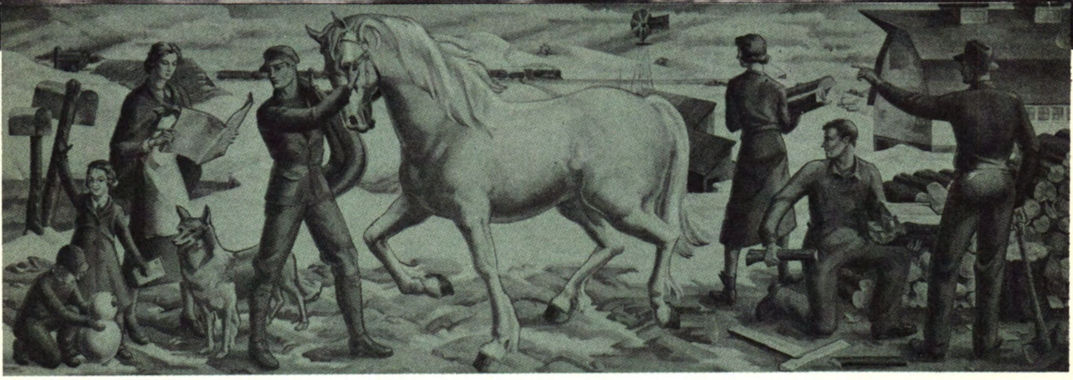
BEETLE-HUNTING, mineral-collecting, and bird watching were the passions of Charles Darwin's childhood, and as a youth he was once thrilled to hear a lecture by the great American bird-artist, J. J. Audubon. His father, a physician, planned a career in medicine for his gifted son, but after a few preliminary courses, Charles showed his distaste for the profession. The ministry was the next choice, and this too was rejected. Meanwhile at Cambridge University new avenues of thought were opening up and his interest in the natural world grew more positive. It was a chance communication that set him on the right road. Through the recommendation of a Cambridge scientist who knew his qualifications he was invited to take the job of naturalist on the H.M.S. *Beagle,* a surveying ship which was going to circumnavigate the globe.

Charles Darwin was 22 when in 1831 he began the famous voyage through the waters of the Southern Hemisphere. He was to return five years later not only with well-filled notebooks and all sorts of collections, but with the beginnings of a great idea—natural selection. It was not until he had spent more than 20 years in further observations and in further development and testing of his main thesis that he made an official presentation of his theory before a scientific body.

Charles Darwin's paper on the origin of species by natural selection was read before the members of the Linnaean Society of London in 1858. At the same time, a paper by a fellow naturalist, Alfred Russel Wallace, who had reached similar conclusions, was read. Most of the scientists present, hearing the epoch-making theories for the first time, were too stunned for comment. But during the months following, the greatest controversy of the age was brewing. The storm broke with full force after the publication of Darwin's book, *Origin of Species,* in November, 1859. Ridicule and denunciation did not bother Darwin.

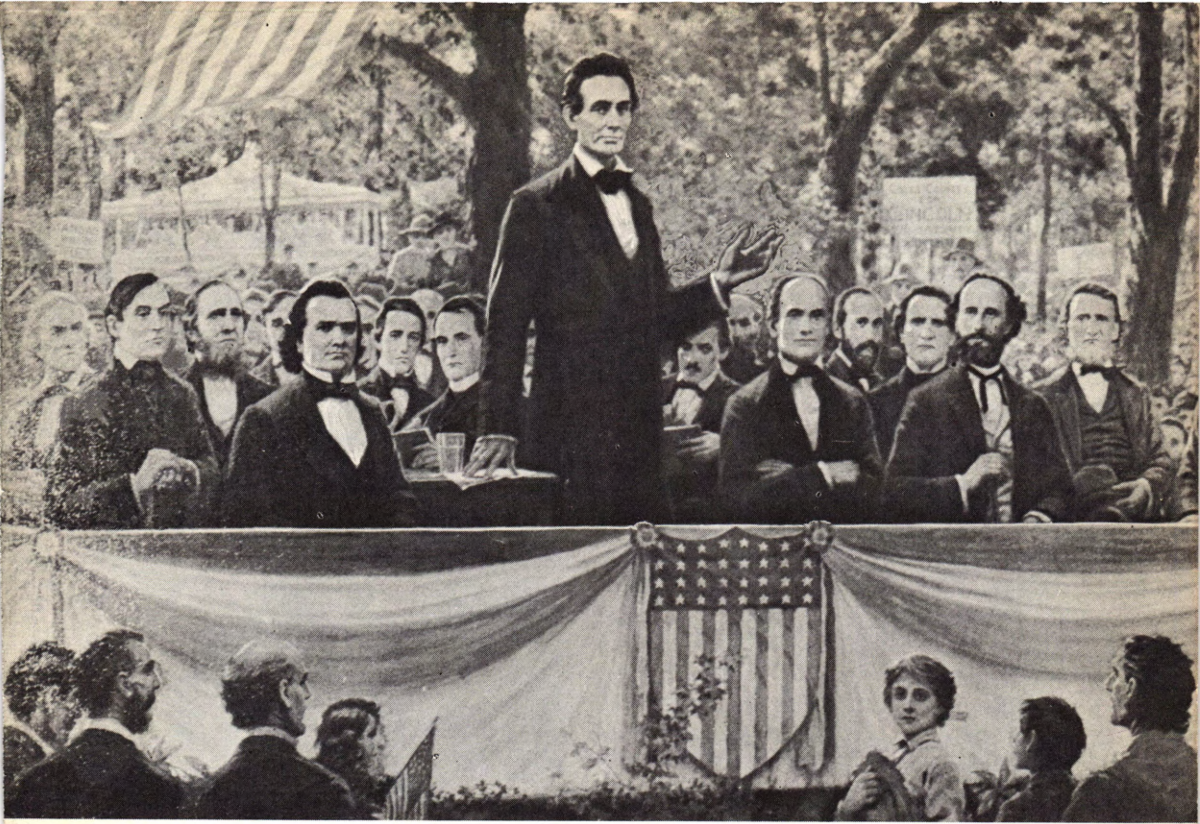
Now, after a century, Darwin's ideas, so bitterly opposed in the 19th century by theologians and even by scientists, are universally accepted. Up to his time, the universe was a closed affair, in which the original life forms had not changed since Creation. According to Darwin, all living things were in a state of change. Variation is the rule among plants and animals, with large numbers of every species constantly eliminated. The survivors are those better adapted to their environments, and thus by a process of natural selection new species arise. That man himself had evolved from a more primitive form of life was the part of the theory the Victorians found most unacceptable.

1858-1958



A HUNDRED YEARS AGO, on May 11, 1858, the frontier territory of Minnesota was admitted to the Union. Its name comes from a Dakota Indian word meaning "sky-tinted water." This poetic description is a tribute to Minnesota's inland waters. One of its nicknames is "land of 10,000 lakes." Actually there are more than 11,000. A splendid vacation state, Minnesota offers fishing, hunting, and trapping, and both winter and summer sports. It has 32 state forests and 61 state parks. Industry and farming occupy its inhabitants. A few square miles of Northern Minnesota produce most of the nation's iron ore, which is shipped from the lake port of Duluth. Other important cities are the twins, Minneapolis and St. Paul. The latter is the state capital and the former is the site of the state university.

At top is the new stamp issued to honor Minnesota's centennial. Below is a mural depicting the early days. In the middle, St. Paul's business district, with the Mississippi in the foreground.



AN ARTIST'S REPRESENTATION of the fourth Lincoln-Douglas debate, held Sept. 18, at Charleston, Ill., attended by 12,000 citizens.

1858-1958

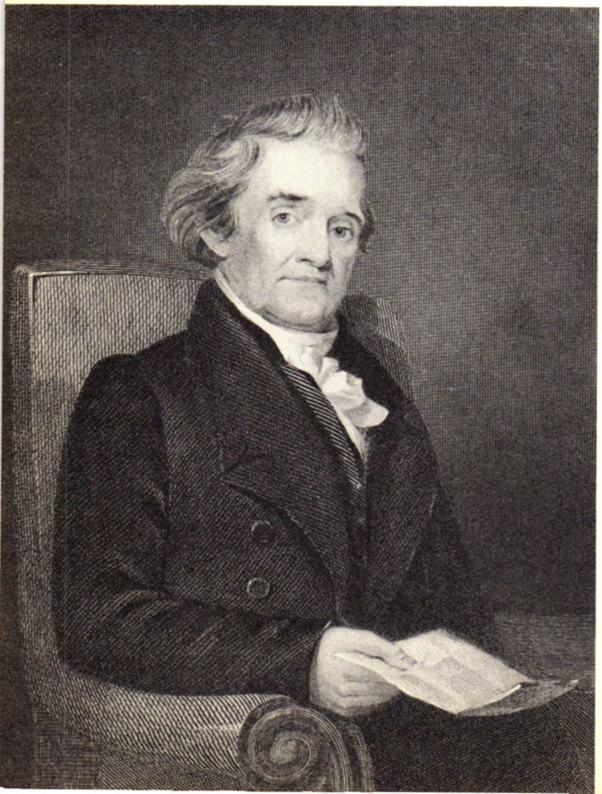
IN 1858, the United States was moving toward the tragic civil conflict that was to be a test of its survival. The question of whether the new states being admitted to the Union were to be slave or free was one that concerned all thinking people. Stephen Douglas, prominent in Democratic politics both in Illinois and on the national scene, was on the U. S. Senate's committee on territories. On the slavery issue, Douglas sponsored a compromise, by which slave territories could be admitted, and then by popular vote determine whether slavery should be legal in that state.

Opposing all compromise on slavery was lanky Springfield lawyer, Abraham Lincoln, a member of the new Republican Party. He was also challenging Douglas' bid for reelection. Their debates, which rank as an example of political oratory at its best, brought the slavery issue into national focus. Douglas won the election and two years later was the candidate of the northern Democrats for the Presidency, with Lincoln again his opponent. After Lincoln's election, Douglas altered his views, and supported Lincoln in the critical years of the War.

In the summer of 1958, the Illinois towns, including Chicago, where the original debates were held, were the scene of reenactments of these historic encounters. At the Galesburg presentation, Knox College students and townspeople put on the show, dressed in mid-19th century clothing. Lincoln historians Carl Sandburg and Allan Nevins attended.

1858-1958

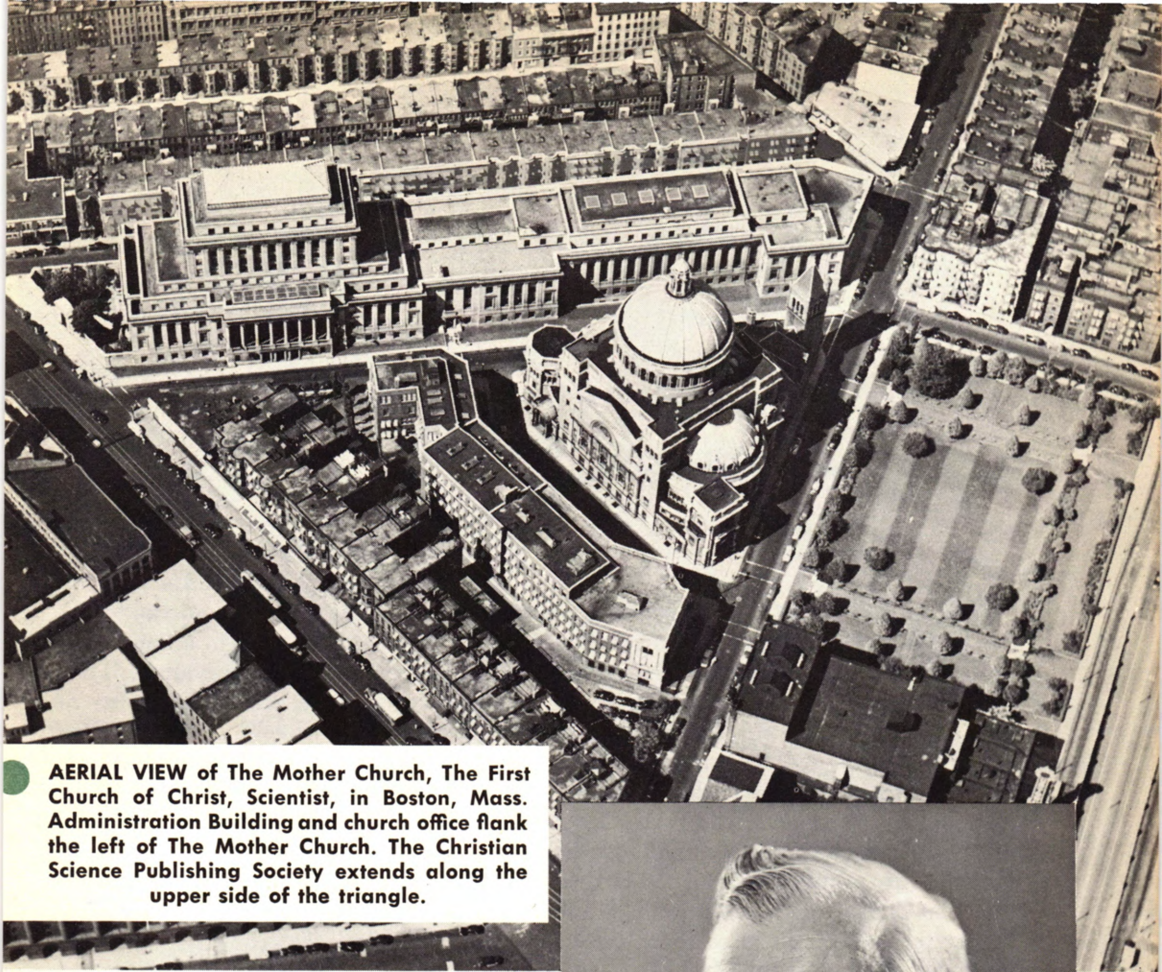
THEODORE ROOSEVELT (1858-1919) was in many respects the most interesting personality who has ever attained the Presidency. A man of diverse talents, tremendous mental and physical energy, and a remarkable zest for living, "Teddy" became a legend in his lifetime. He was legislator, rancher, soldier, political reformer, writer, naturalist, explorer, diplomat. At 43, he succeeded William McKinley to become the youngest president in U. S. history. The seven and a half years of his administrations are remembered for pure-food-and-drug legislation, the anti-trust acts, conservation, and other reforms. Among his notable achievements: helping to bring the Russo-Japanese War to an end (for which he won the Nobel Peace Prize) and, in 1912, initiating the Progressive Party. Although the life of the Progressive Party was short, the movement invigorated the Republicanism of that day.



1758-1958

NOAH WEBSTER, the great American patriot and lexicographer, was born in 1758. His most famous work, the first unabridged dictionary to appear in the United States, was published when Webster was 70. It was the culmination of a lifetime of scholarship and study. Webster called it *An American Dictionary of the English Language,* thus recognizing that the New World was making a contribution to the common speech. This dictionary, revised through the years, is the basis for the *Merriam-Webster International Dictionary* of today.

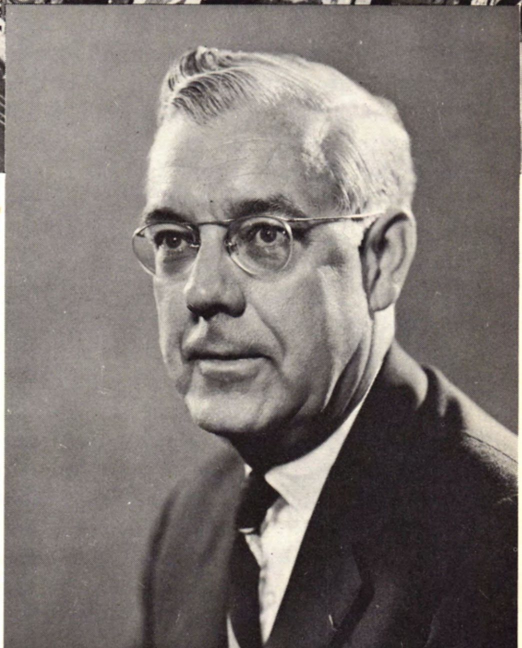
A man of stupendous energy and ability, Webster had earlier published another basic American book, *The Blue Back Speller,* which sold some 70 million copies during his lifetime and later.



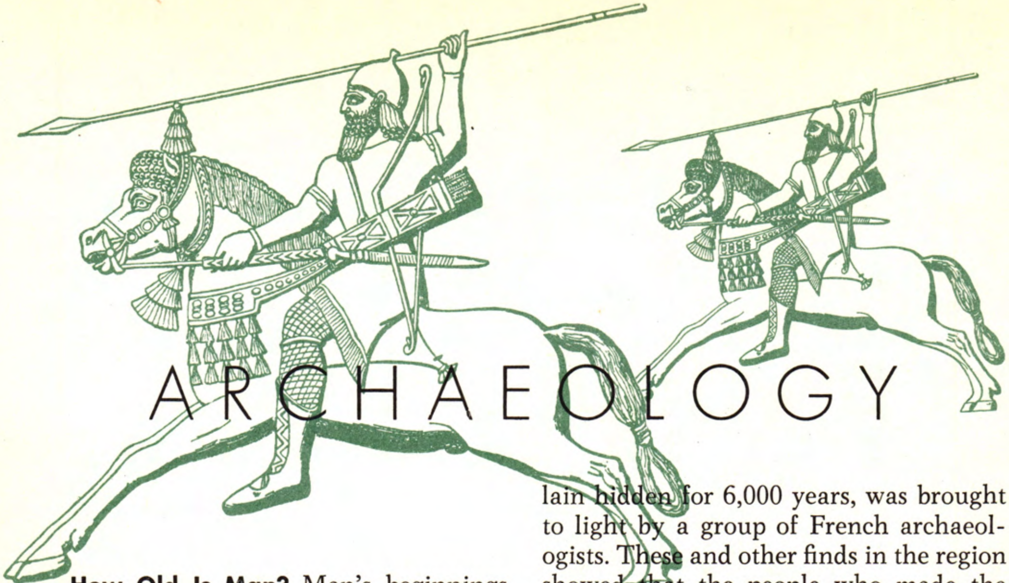
AERIAL VIEW of The Mother Church, The First Church of Christ, Scientist, in Boston, Mass. Administration Building and church office flank the left of The Mother Church. The Christian Science Publishing Society extends along the upper side of the triangle.

1908-1958

THE CHRISTIAN SCIENCE MONITOR celebrated the completion of its first fifty years in 1958. A daily newspaper with an international circulation, the Monitor has built up a reputation for careful reporting and balanced treatment of news. It has thorough coverage of the far corners of the globe and carries fascinating feature stories. The Monitor's news selection emphasizes the positive, ignoring crime, gossip, and private lives. It has departments for the homemaker and for young people, and for those interested in books and the arts. Advertising fills but a small percentage of its columns. In short, the Monitor is a unique and valuable journal.



ERWIN D. CANHAM, Editor of the Christian Science Monitor, the only newspaper published by a religious organization having an international circulation.



ARCHAEOLOGY

How Old Is Man? Man's beginnings are being pushed ever further back into the past. The skeleton of a child-sized early man was found in 1958 near Grosseto, Italy, in a soft coal mine 600 feet below the surface. A Swiss scientist who examined this important discovery declared that the skeleton may be eleven million years old. Previously, the oldest skeleton or partial skeleton unearthed was that of Austro-pitheous man, found in South Africa. This dated back only a mere half million or million years.

Bible Lands. In spite of armed soldiers, barbed wire, and tension along the frontiers of Israel, the search for ancient Biblical sites continues. Archaeologists from many countries quietly persist in digging up the past buried beneath the thin soil or hidden in caves. Many discoveries have been made by chance, as was the case with the Dead Sea Scrolls. The harsh physical conditions, as well as frequent raids by Bedouin tribesmen, have often made the projects difficult to carry out. With the opening up of roads and farmlands, exploration has become easier. All this work contributes to our understanding of the historical setting of the Old and New Testaments.

Pre-Biblical Discoveries. Recent finds made in the southern Negev are definitely from an even more remote time. A collection of carved ivory objects, which had lain hidden for 6,000 years, was brought to light by a group of French archaeologists. These and other finds in the region showed that the people who made the carvings were also skilled in animal care, farming, and water conservation. They may have been the first inhabitants of the region, and probably wandered in from Mesopotamia. They dug their dwellings out of the cliffs that rise from Wadi Beersheba (a wadi is the dry bed of a stream).

The ivory objects show a well-developed artistic style, leading the archaeologists to believe that they are the work of a school of carvers with established traditions. Many of the pieces were designed to be worn as jewelry.

Early Christian Art. In 1958 a bulldozer was slicing away, building a road along the Mediterranean coast between Acre and Lebanon. The driver suddenly noticed that he was grazing what seemed to be a mosaic pavement. Moshe Prausnitz, head of Israel's Department of Antiquities, soon arrived on the scene with a crew of workers. Investigation revealed the remnants of a settlement of the Roman Empire, probably of the fourth century. Under the sand was the superb mosaic floor of a Christian church. The mosaic colors are black, white, yellow, red, and blue in geometric patterns. The original church had massive marble colonnades.

Alexander's Home. In northern Greece, 25 miles from Salonika, the realm

of Philip of Macedon is being uncovered by Greek archaeologists. A goatherd, while enlarging his cellar, came upon fragments of an Ionian capital. Every Greek knows that stray bits of stone and marble may be valuable clues to a rich past. In this case, excavators were soon at the site, and before long the outlines of an extensive town were apparent. Archaeologists have proved to their satisfaction that it was Pella, Philip's capital and the birthplace of Alexander the Great. Pella was also capital of the Hellenistic world for 300 years. It was razed by the Romans in 168 B.C., and its ruins served as a quarry, yielding stone for building new villages nearby. The vicinity is today a rich agricultural area that grows wheat, cotton, and tobacco. One of the most impressive of the discoveries at Pella was the mosaic floor of one of the palace buildings—an excellently preserved design covering 80 square feet showing Dionysus, god of wine, astride a panther.

Mythology Comes Alive. Excavations have gone forward at many other sites in Greece. At Volos, on the Aegean coast, which in 1957 suffered a severe earthquake, a great palace of Mycenean times, together with much pottery of the period, has been discovered. The palace is believed to be that of Jason, legendary hero, who set out from here in search of the Golden Fleece.

In Turkey, about 65 miles inland from Smyrna, an American group is digging at ancient Sardis, once a city important throughout the Mediterranean and Near Eastern world. It was the capital of the land known as Lydia. The palace of the fabulously wealthy Croesus is in the vi-

THE MOSAIC FLOOR of an early Christian church was recently brought to light by archaeologists in Israel. Note the fish and pomegranates used as symbols.

TEMPLE AT PHILAE, upper Nile, which the reservoir to be created by the Aswan High Dam may completely cover.

cinity, as well as temples to Artemis and Zeus. Will the riches of Croesus be found?

Everybody has heard of the "pipes of Pan," that jolly pastoral god who is usually portrayed with horns and goat's feet, and playing on reed pipes. He was worshiped originally in Arcadia, and later in Athens. A cave in the mountains near Athens was identified in 1958 as the Cave of Pan, often referred to in classical writings. An archaeologist was led into the cave by a peasant who had noted a small opening in the side of a mountain. The cave contained broken pots and art objects dating from about 3,500 B.C. to the early Roman period.

In Siberia. Displayed in Moscow museums are recent discoveries made in central Siberia. Some interesting textiles, including what is believed to be the oldest carpet in the world, throw new light on a very ancient culture. The area was inhabited by the warlike Scythians, a powerful people who roamed the Siberian plains for centuries. Several hundred years before the Christian era, they moved southward, to make contact with the Persians — another race of carpet weavers. The discoveries also include embroidered felt, an art still practiced in the region.

Stonehenge. This legendary chapel of the Druid priests on Salisbury Plain in England was the subject of controversy in 1958. The Druids used the form known as the trilithium—two upright rough stone pillars, with a third joining them across the top. Most of the component parts were formerly lying prone on the ground. The government has now restored the massive fallen stones to what was undoubtedly their original position. Arrangements were made for floodlighting the area at night to make Stonehenge more of a tourist attraction. Naturally, this has brought criticism from many persons who liked Stonehenge as it was —a lonely, eerie spot, with an atmosphere that recalled the long-dead past.

Dam to Blot History? The Soviet offer to finance the building of a high dam at Aswan, on the Upper Nile, has a special meaning for historians and archaeologists. If the project is carried through on schedule, a storage basin more than 300 miles long will engulf an area that holds rich treasures of the past. This river valley, lying partly in Egypt and partly in Sudan, contains many temples, palaces, and burial grounds. The Department of Antiquities of the Egyptian Government has asked all countries and groups that have shown an interest in Egypt to concentrate their attention here during the next five or six years. The United Nations Educational, Scientific and Cultural Organization has a photographic program in progress to make a permanent record of the remnants of early civilization along the Upper Nile and the Egyp-

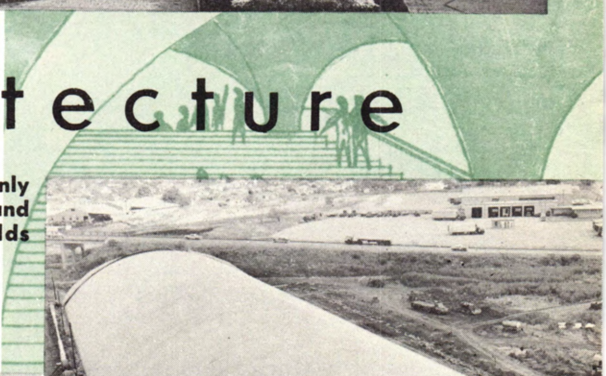
ARCHAEOLOGY can be a fascinating hobby. These young people at Philipsburg Manor, in the Hudson River Valley, are learning its rudiments by uncovering and sorting 17th century Dutch artifacts.

tian government is also sending archaeological expeditions into the area.

Some of the smaller temples, such as those to Isis at Philae, near Aswan, may be taken down and reassembled elsewhere. At present, the seasonal overflow from the old dam at Aswan inundates the temples during two months of the year. Two beautiful temples at Abu Simbel above the Second Cataract will almost certainly be lost. They were carved out of the mountainside in the reign of Rameses II, more than twelve centuries before Christ.

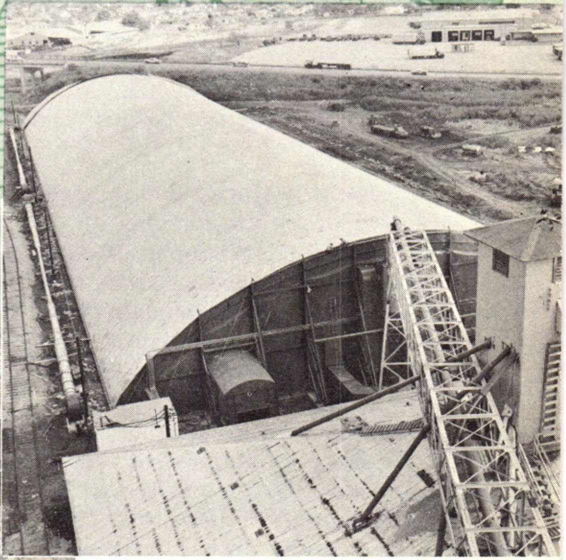
In Sudan. The losses following the construction of the dam will be greater in Sudan than in Egypt, for there has been much less excavating in the former country. However, during 1958 the Egyptian Exploration Society has been working at Buhen, on the west bank of the Nile in northern Sudan, close to the Egyptian border. Here the Pharoahs established an important military outpost. Excavations begun in 1910 opened up rich tombs, and an impressive stone defense system. The tomb appears to have been stormed and sacked at the time of the Hyksos invasion, and rebuilt and enlarged later. The walls of the fortress, parts of which date back about 4,000 years, have been well preserved by being buried in earth. Recent excavations have revealed the work of master architects of the Middle Kingdom.

FOUNTAINS and landscaping are a part of the built-in beauty of New York's international airport. A hotel for stranded travelers is a much-appreciated convenience.

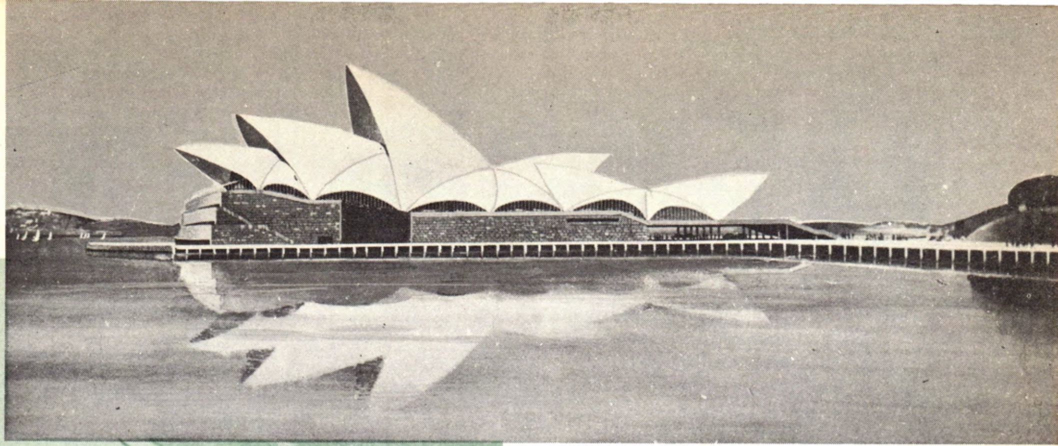


Architecture

BUILT IN FIVE HOURS, this is the only steel-roofed structure ever raised—and held up—by air pressure. It holds 1,800,000 bushels of grain.

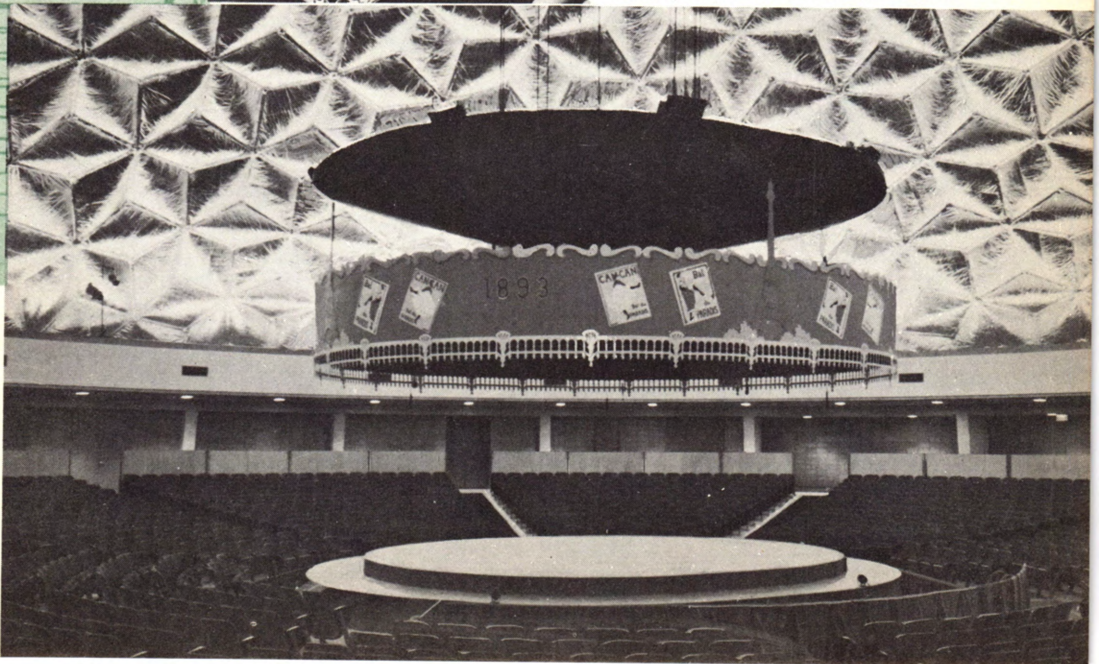


WELL-ROUNDED education might describe what the children who attend this school at Daly, Cal., are getting. The circular school is of concrete block and glass construction.



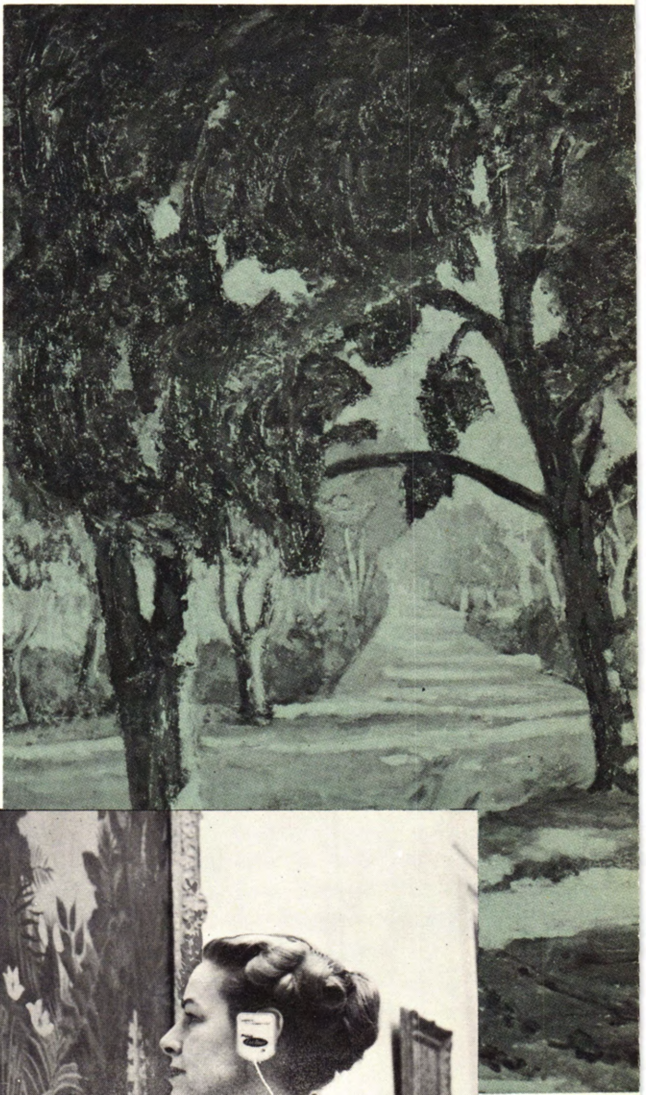
A WORLD-WIDE contest for a design for the National Opera House of Sydney, Australia, was won by the Dane, Joern Utzon. The winning design has a spectacular sail-like roof of vaulted concrete shells. It will be situated on the waterfront and will cost about $8,000,000.

R. BUCKMINSTER FULLER, an original thinker in many fields, calls himself a "comprehensive designer." Thirty years ago this structural engineer patented his dome or Dymaxion house. The word "dymaxion" comes from dynamic and maximum. Although too few people wanted to live in the house to make it a big commercial success, the Fuller ideas survived and flourished when adapted to other structures. Today his aluminum dome is being used to roof community centers and many other types of buildings. It can be put together with dazzling speed. Below is an interior view of the Fort Worth theater-in-the-round, built on Fuller principles.



ART in the NEWS

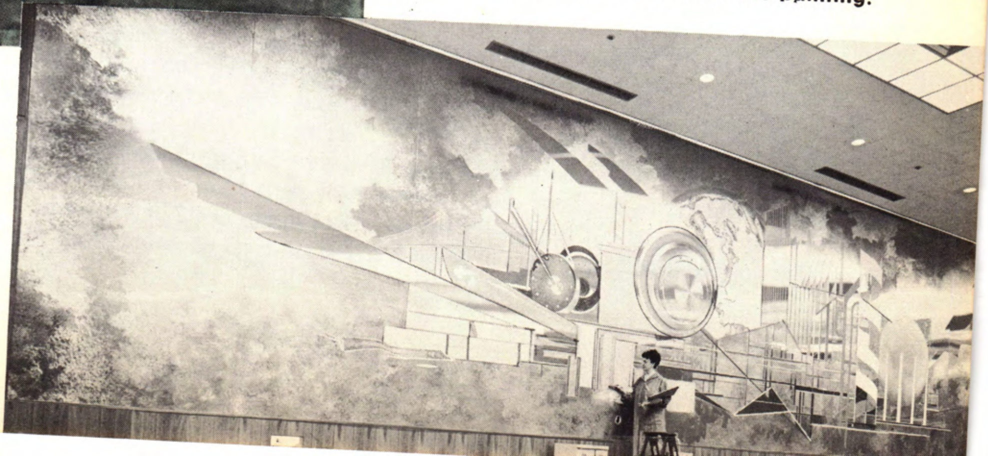
SIR WINSTON CHURCHILL'S paintings were exhibited in 1958 in several American museums, under the sponsorship of Hallmark Cards, Inc. Although this distinguished amateur will not be judged in history as a painter, the results of his pastime will add to his stature as a man. The placid landscape at the left is characteristic. Painted in the south of France, it is called "Cork Trees Near Mimizan," and is one of the few of Sir Winstòn's works that present human figures.



A NEW INVENTION, shown below, enables a visitor in a gallery to hear a description of a painting while viewing it. The device, called "Lectour," is being used in the National Gallery, Washington, D.C. Other museums, including the Chicago Art Institute, have installed beside certain paintings pushbuttons connected with a recording that tells something of the work of art.

SEVEN AMERICAN MUSEUMS showed a surpassingly beautiful exhibition of "Masterpieces of Korean Art" in 1958. It was the first comprehensive showing of Korean art ever seen outside the Far East. The 18th century portrait at the right is by an unknown artist.

WORLD'S LARGEST MURAL on stainless steel—51 by 14 feet—was installed at a Chase National Bank branch in New York. The artist, Buell Mullen, has depicted the many businesses and industries that banks have helped to develop. It took Mrs. Mullen five months to complete the painting.



HEAD AND TORSO of an ibex, the original of which was made in Persia in the 4th century B.C. An Alva facsimile.

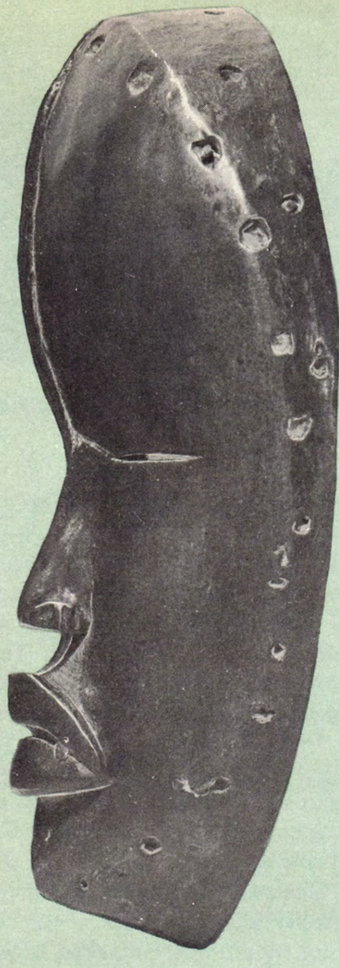
REPRODUCTION of Aztec "diving god." The original work in marble was a ceremonial ax head, made in the 9th or 10th century.

ART

Changing Attitudes. Throughout history people have wanted things of beauty around them, things that stimulated the imagination, or gave a sense of serenity. In nearly all civilizations, the artist has been someone special, deserving of respect and, in many historical periods, of support.

In the United States today there is a new awareness of the artist and his function in society. There have been times when the artist was not highly regarded, in fact, looked upon as a parasitic character, Bohemian in his habits, existing on the outer fringes of life. Today, the graphic arts are enjoying a mild boom, and in consequence the social and financial status of the artist has improved.

Artists got a helping hand during the depression of the 1930's when the Federal government subsidized professional artists to decorate postoffices and other public buildings. Some of the works were not very good, and the whole enterprise was denounced by critics of the Administration as boondoggling. Still, the Fed-



FACSIMILE of African dance mask, from the carved wood original, produced by Alva Studios, Inc.

eral Arts Project gave their first recognition to many fine painters and sculptors. Scores of expert draftsmen were employed during this period in creating that fascinating record, *The Index of American Design,* a project which was to be very influential in inspiring pride in the arts and crafts of the American past.

Investing in Art. Today's new interest in art and artists may be traced back to that period, but many other factors have also been at work. General prosperity comes first. People do not spend money on art until their material needs have been pretty well cared for. And many Americans are tired of spending their spare cash on mechanical gadgets and labor-saving devices. They want something to enjoy in the living room—something to decorate those large uncluttered walls that today's architects are providing for young homemakers. An important trend in domestic architecture is interior spaces where paintings, prints, hand-woven or hand-blocked textiles and sculptures can be attractively displayed.

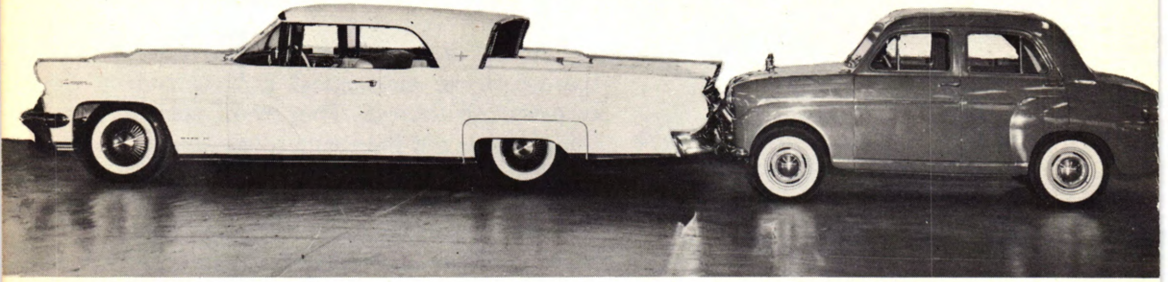
Art fairs, which are held at appropriate seasons all across the land, have also been helpful. Many people who never thought of owning an original work of art until they started going to art fairs, are now "proud possessors," and count artists among their friends. The fairs have helped the artist to emerge from anonymity—to be seen and talked to as a person—worker, parent, citizen, just like everybody else.

Facsimiles. The great art museums have done their share in stimulating interest in art and artists. Most of them have rental services. Contemporary paintings, often by young artists whose work is not well known, can be rented, with the rental fee going toward the purchase if the renter so decides.

Another valuable service of the museum is to offer for sale a wide range of facsimiles and reproductions of their treasures. These are very moderately priced, and are prized by art students and others who appreciate the best—but can't afford original art works. Several commercial companies are producing beautiful color prints of great paintings and facsimiles of sculptures, usually reduced in scale.

Countless courses in art appreciation and countless other courses in the practice of some art must also be mentioned as contributing to a more mature view of art on the part of the average American.

AUTOMOBILES



THE ULTRA-LONG Lincoln Continental and the ultra-short British-made Triumph illustrates to what "lengths" car manufacturers are going.

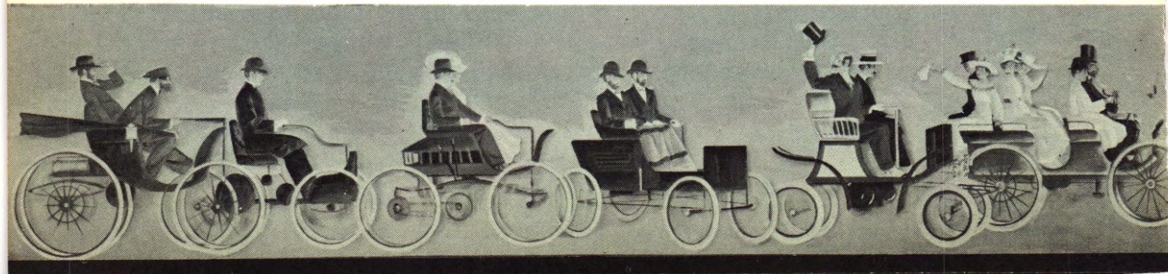
Small Car Buyers. An interesting survey was made in 1958 by the *U. S. News & World Report* to determine who buys small foreign cars and why. The findings showed that a majority of such persons have an above-average income, above-average education, own another car, are persons of standing in their communities, and are under 37 years of age. Among the reasons given for buying the smaller cars were: lower operation costs, 40 per cent; economy in general, 33.2 per cent; lower initial cost, 19.8 per cent; smaller size, 10.2 per cent; ease of handling in traffic, 8 per cent; better workmanship, 6.6 per cent; new, different appearance, 3.6 per cent. Economy was easily the decisive factor in the great majority of cases, according to these figures.

Most people who have tried foreign cars seem to like them. Sixty-six per cent will consider another foreign car the next time they are ready to purchase. The trend to the two-car family is creating a demand for a cheaper, less luxurious car than American industry is producing today. The working wife who needs her own car for transportation is another factor that stimulates sales.

The cars covered in the survey ranged in price from $1,000 up, with the great majority under $1,700. The heaviest concentration was found to be on the two seaboards. Californians are the heaviest users of foreign cars; people living in New York, Florida, New Jersey, Texas, and Pennsylvania follow in that order. In 1957 sales of foreign cars totaled 206,948; in 1958, in a single month, July, sales hit a record 32,671. Sales for the year were about 375,000, 8% of the U. S. auto market, as contrasted to 3.5% for 1957.

Big Three Lag. By 1960, the big three —Ford, General Motors, and Chrysler— will probably be in the thick of the competition for the small car market. At present Ford and General Motors import and distribute certain makes of small European cars—Ford, the German Taunus, and General Motors, the British Vauxhall and the German Opel.

The increased demand for foreign cars, high sales for the small, economical Rambler of the American Motors Corporation, and the lagging sales for large conventional cars—these were straws in the wind that could scarcely be overlooked. Most of the 1959 models were beginning to take form, however, two or three years earlier, before the trend became marked.



 AUTOMOBILES

At the end of 1958, the demand for smaller, less glamorous cars of American manufacture was being met by two companies. The Rambler, which continued its high sales record in 1958, offered the same car in 1959, and a new station wagon which was about three feet shorter than most station wagons in the lowest price range. Studebaker-Packard also presented a new economy-type model, the Lark, that started in price at $1,800. It was only 175 inches long (shorter than the Rambler), had little chrome, two headlamps, no fins, and was a few inches higher than most 1959 models.

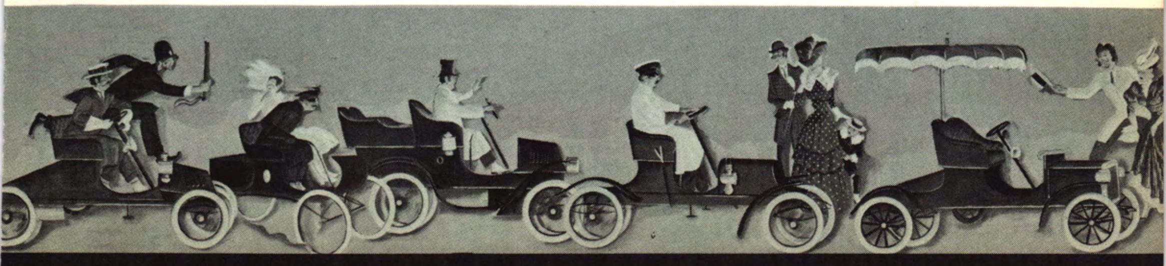
G. M.'s Offering. General Motors—responsible for the manufacture of Buick, Cadillac, Oldsmobile, Pontiac, and Chevrolet—put a good many of its models on display in the early autumn. In size the cars tended to be longer, lower, wider, and heavier. Prices were higher. Flaring fins made previous flaring fins hide in shame. In most models, glass areas were increased. Wrap-around rear windows for all makes were a useful improvement. In the new Cadillac models, improved engine design was said to lower fuel consumption. Pontiacs were roomier inside, quite a bit lower, with a wider wheel base to make the car easier to control. The most drastic changes were in the lines of the Buick whose "new look" even included changing its old established line names.

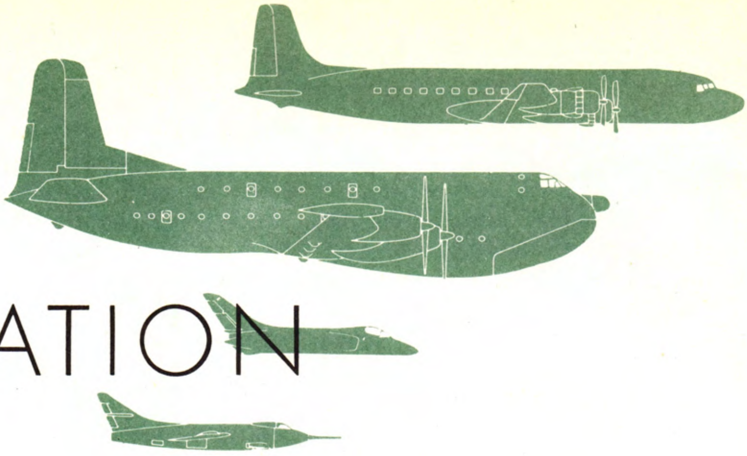
Chrysler Group. The Chrysler Corporation's family of cars, including Plymouth, Dodge, and De Soto, showed many styling changes, leaning toward the plushy and luxurious. In some models a new roof panel gave increased head and leg room. Swiveling seats were another inside feature, but these were available only on the higher priced models.

Fords. The new Ford cars were unveiled in October and November. They were, in the main, longer, had more glass and different grille styling. Edsels retained some of their distinctive features but were said to have mechanical improvements. The price of Edsels was slashed. The Mercury, without fins, had new styling, including a wrap-over windshield.

Prospects of Better Sales. Economists have hopefully predicted that sales of 1959 cars will total from five and a half to six million—a good million over 1958. At latest count there were 2.5 persons to every automobile in the United States. The closest competitor is Great Britain with one car to every 10 persons.

CALLED THE "SURREY," this nostalgic little car is made by the Dyer Company, Canton, Ohio. Assembled it costs $1,095, including Federal tax, but you may buy a packaged kit for $895 and put it together yourself. Both prices are F. O. B. Canton. The Surrey (not for speed demons) rolls along at a comfortable 35 miles per hour.





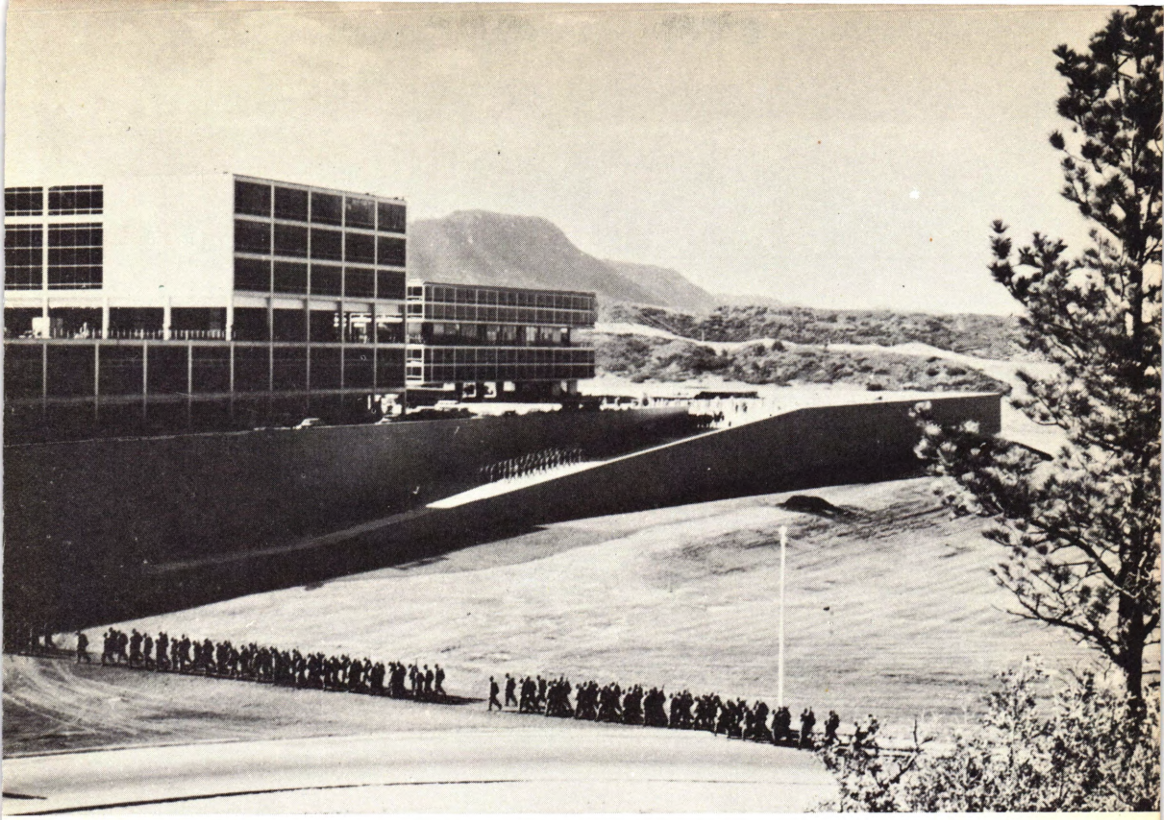
AVIATION

Jets Are Here! A new period in civil aviation opened up in 1958 with the launching of regular daily commercial jet flights over the Atlantic by British and United States airlines. British Overseas Airways Corporation began a weekly trans-Atlantic service in October, and, after a strike which caused service to be suspended for a few days, started daily flights in November, with a fleet of Comet-IV's. Pan American's Boeing-707's, with four turbojet engines, launched their Paris run almost simultaneously. France planned to have a jet service in operation early in 1959, Belgium and India soon after. The airlines of many other countries are following the trend, purchasing jets of American or British manufacture.

The Soviet Union was reported to have 40 jets in passenger service early in 1958. One of them delivered a delegation of Russian diplomats to an eastern seaboard airfield during the spring.

Israel First. Actually, Israel's El Al airline was first with commercial jet service,

NOW IN OPERATION are Pan American's fleet of jet Clippers. Carrying 165 passengers, these Boeing 707's have a cruising speed of 575 miles an hour and will reduce flying time to Europe by about 40 per cent.



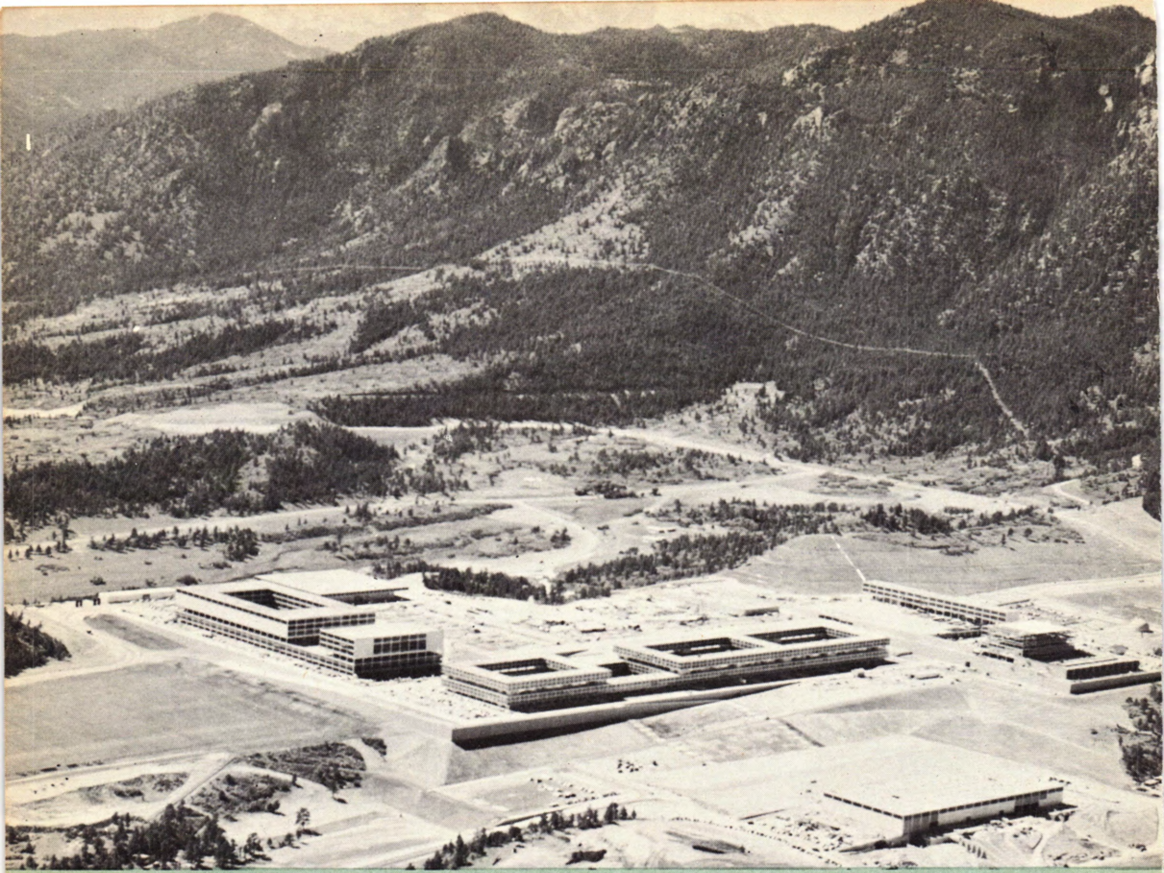
AN IDEAL TRAINING SITE for the nation's young airmen, the Academy is modern in every detail of construction. Some buildings are not yet completed. Above is the dormitory-academic area.

having started its twice-weekly flights between Israel, Great Britain, and New York in December, 1957, with jet-prop Britannias. The service was stepped up in 1958 to four round-trip flights weekly. Each plane carries 89 passengers, a crew of eight, and some freight. One of the Britannias briefly held the speed record for an Atlantic crossing. Its time was eight hours and three minutes. Records don't last long in the air age, and this one was soon broken. The new British and American jets, a few months later, were sometimes able to fly the Atlantic in six and a half hours, at a cruising speed of six miles a minute.

Jet fares are about the same as fares on propeller-driven planes. For instance, the round-trip fare from New York to Tel Aviv, first class, is $1320.30; the average time, one way, is 18 hours. The round-trip fare to London is $782; average time eight and a half hours. Low-priced tourist rates as well as lower prices during the winter season will be in effect later.

A Costly Development. The jet engine was developed for the Air Force, and adapting it to civilian use has been costly. In the United States the construction cost of a civilian jet plane may be five or six million dollars. Behind the actual production cost is the expense of years of research on such problems as reducing engine noise at take-off and landing. This has been partially solved, but suburbanites around New York's airports continue to protest the disturbance. Having attained height, the jet is quiet—it runs away from the roar. It is vibrationless. One may eat, write, or read as tranquilly as at home.

Millions have been spent in expanding existing airfields, runways, and hangars



SEPTEMBER, 1958, marked the opening of the U. S. Air Force Academy, nine miles north of Colorado Springs, Colo. Snow-capped Pike's Peak and the Rampart Range loom in the background.

to accommodate the jets. Jet runways must be 7,000 to 11,000 feet long. Also blast fences must be built as a protection against jet exhausts. In addition, there is the high cost of fuel, which the jet consumes at a tremendous rate. The training of personnel, the development of better plane-to-ground communication, and improved weather data—all these were factors that contributed to the final cost.

In the not too distant future, jets will be able to carry up to 155 passengers—and to span the Pacific in nine hours. Almost at once they will be playing an important role between North American and the Caribbean and South American countries, transporting both freight and passengers.

Ramjets. News that the British government is considering the ramjet type of engine comes as we go to press. Engineers claim that it would be more economical to run than the turbojet—and would get there faster. Its designers state that it could be linked to the turbojet, taking over when the airliner was through the sound barrier. It could rocket to a height of 80,000 feet in 15 minutes, and make the trip from London to New York in two hours.

The Rotodyne. A new type of aircraft has been developed by the British Fairey Aviation Company. Taking off from any landing mat like an ordinary helicopter, it climbs to 4,000 feet, then its power is transferred to the forward-facing propellers. From then on, until time to go down for a landing, it flies like any conventional fixed-wing airliner. It seats 48 passengers and has a range of 400 miles. Its

cruising speed is 239 miles an hour. A U. S. firm has been licensed to make the plane.

The new plane is ideal for short runs between cities, where in the past a flying trip often took longer than other means of transportation, due to long distances from a city's center to its airfield. Between London and Paris actual flying time is a few minutes over an hour, but with the long bus trips at either end the trip takes four and a half hours.

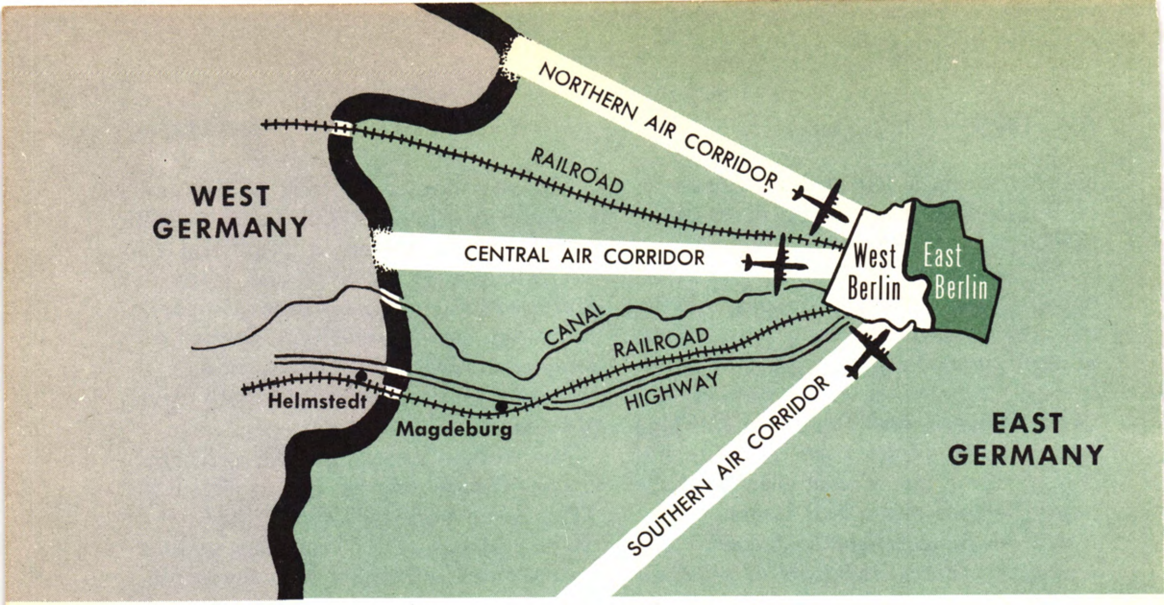
U. S. Air Force School. In August, 1,145 young Air Force cadets took up their residence at the Air Force's new academy near Colorado Springs, Colo. The site is magnificent and the architecture impressively modern. For three years, during construction, the Air Force cadets have occupied temporary quarters at Lowry Air Force Base in Denver.

Congress limited the cost of the new academy to $139,797,000. There is still no air strip, so classes in flying and air navigation must go back and forth in chartered buses to Lowry Base. Also, academic and faculty dwellings are not yet completed. Before the entire project is complete, new appropriations will have to be made.

Air Traffic. Several mid-air collisions causing heavy loss of life occurred in 1958. Some were between military and civilian planes. These disasters pointed up the need of better air traffic regulations.

According to a late count, there were 1,829 commercial planes, 80,000 military planes, and 60,000 private and business planes operating in the United States. All are entitled to a fair share of air space and a safe system of air traffic control.

THIS DORMITORY ROOM in which two cadets sleep and study looks both functional and handsome.



BERLIN

Another Crisis. Khrushchev set a time bomb in his announcement in November that the Soviet Union would be pulling the last of its forces out of East Germany and East Berlin by May, 1959. The problem of Berlin, in the heart of Communist East Germany, is a part of the larger problem of Germany. Although there had been some warning of the Soviet withdrawal, the Allies were not prepared to meet this emergency with any concerted plan of action.

Since the end of World War II, Berlin has been under four-power occupation, with French, British, and U. S. forces occupying sections of West Berlin and the U.S.S.R. in charge of the eastern part of the city. The Allies are thus on a Communist island, 100 miles from West Germany. Russian withdrawal would mean that they would have to negotiate with East Germany, and they have never recognized this puppet regime. There is little doubt that East Germany would take drastic steps to oust the occupying powers. The transport of supplies would be at its mercy, and a crisis such as that of 10 years ago, which led to the Berlin "air lift," might easily develop.

Russian Aim. The Russian decision sounds logical and appealing. As an immediate result, it seems designed to force the West Germans into some kind of accommodation with the East Germans—which would leave the occupying powers no move except withdrawal. The ultimate aim is of course to get Berlin, then all Germany, under Communist control. According to his announcement, Khrushchev seeks only a neutral, demilitarized confederation of the two Germanies. Confederation, as opposed to reunification, would mean that the two sections would each retain its own independent social and political system, and act jointly only on matters which effect them commonly, such as foreign policy. The Allies, having helped to build up West Germany's prosperous civilian economy and its military potential, would not willingly scrap it in the face of Soviet pressure.

More and more West German leaders are giving up the idea of reunification. At present West German economy is functioning in high gear. East Germany, naturally poorer in resources and industrial development, is a sort of poverty-stricken relation. Communism does not seem to have produced economic well-being or contentment among the people. Some 3,000,000 East Germans have trickled into West Berlin, and then on into West Germany since the occupation began.

Books

BORIS PASTERNAK, Russian poet, gained recognition outside his own country by the publication of his novel, *Dr. Zhivago*, which was hotly denounced in the U.S.S.R.

ADULT BOOKS

Fiction

Soviet Bestseller. "The Pasternak affair" was the most written-about, most talked-about event of the literary year. Rumors of Boris Pasternak's fine poetry had been coming out of Russia for years, and in his own country this writer was known as a superb translator. His translations of the plays of Shakespeare and of Goethe's *Faust* were considered the best ever made into Russian. Then, in 1957, this respected Russian writer achieved fame of another kind through the publication of his novel, *Doctor Zhivago* (Pantheon Books, $5), in several European languages.

The history of the work is interesting, giving, as it does, some insights as to the plight of writers in the Soviet Union. After long consideration, *Doctor Zhivago* had been rejected by an important Soviet publisher as anti-Communist in spirit. The letter of rejection ran to nearly 10,000 words. Meanwhile, in 1957, Pasternak had sold the foreign rights of his book to an Italian publisher. When the author learned the book was not acceptable in his own country, he tried to withdraw the manuscript, but it was too late. On publication it became an instantaneous success in Europe, and in 1958 was awarded the Nobel Prize for literature.

In the Soviet Union, the repercussions were immediate—and fairly serious for the author. The U.S.S.R. denounced the prize as a political award, not based on the book's intrinsic merits. The author was held up to scorn by various Soviet groups and organizations. The novel *Not by Bread Alone,* published in 1957, had been fairly critical of Communist bureaucracy, but in *Doctor Zhivago* we have a good man unable to adapt himself to "the system."

Pasternak gratefully accepted his prize, then declined it, presumably under pressure. The Soviet Union announced that

he was free to leave the country—but there was a veiled threat in this permission. Now a man of nearly 70, Pasternak did not want to become an exile, leaving home, family, and country.

The book concerns a Jewish doctor, an intellectual of the wealthy class, growing up in Russia before World War I. Then came that war, the revolution, civil war, and, finally, World War II. All these events are reflected in the mind of the sensitive and compassionate Zhivago. Thus the book is less an integrated story than a series of scenes, philosophical reflections, conversations. It is a tale of extreme suffering softened and humanized by the doctor's feeling for people, his sense of justice, and his love for two women. One's final impression is that the book is a strong defense of the individual engulfed in a totalitarian tide.

A Policy-Changing Book. A book which stirred official circles in Washington, D. C., was *The Ugly American* (W. W. Norton, $3.75) by William J. Lederer and Eugene Burdick. Both authors have had wide experience in the Far East, and their book, although called a novel, is a documentary close-up of what goes on in connection with U. S. foreign aid. It consists of a series of what apparently are real episodes, lightly disguised. In *The Ugly American* there are stories of noble Americans, carrying ideas and concrete aid to the countries of this region, helping in vital ways, and also a set of bounders who have taken government posts for their own personal gain or glory. Carefully planned Soviet methods in the area are contrasted with slapdash American methods. This book, which President Eisenhower read and liked, is said to have caused a shakeup in foreign aid techniques and personnel.

Middle Age and Crisis. In *Women and Thomas Harrow* (Little, Brown, $4.75), John P. Marquand has chosen a leading American playwright for his hero. Harrow has become so imbued with the stage that his every word and gesture is theatrically self-conscious. Fiftyish, thrice married, and past his peak of success, Harrow returns to the New England town where he spent a part of his boyhood. Here, in the course of the few hours which the span of the book covers, he faces financial disaster and a crisis in his marriage. Reminiscenses and cutbacks tell the story of Harrow's life. Competently written and carefully documented as it is, the characters somehow fail to come to life.

Classic Myths. Any adult with an interest in the classic myths, or even in archaeology, will enjoy Mary Renault's *The King Must Die* (World, $4.50). It can scarcely be called an historical novel for it deals with the dim days of prehistory, telling as it does the mythical story of Theseus and the Minotaur. The tale is beautifully told, and, because of the author's expert use of scholarly source material, it is convincing as well. It was the time when, in the eastern Mediterranean, the cult of the earth goddess was being replaced by a newer pantheon, in which the male principle was to be dominant. The book, then, deals with the mystery-cloaked birth of Theseus and his epic exploits in several city states, including Athens, where he met his father Aigeus; then the departure with the shipload of young men and women taken as tribute, for the island of Crete; how the Princess Ariadne revealed to him the mazes of the Labyrinth in the palace of Knossos. The destruction of the great palace, the escape of Theseus and Ariadne to the island of Naxos, and the tragic ending follow in exciting sequence. The book has a brief bibliography.

Another widely acclaimed novel of the far-away-and-long-ago is T. H. White's *The Once and Future King* (G. P. Putnam, $4.95). It is a recreation of the legend of King Arthur and the Round Table. Through his masterful handling

of this theme, the author makes the Middle Ages live again, and the characters of the old story become vivid, believable human beings.

Autobiography

Three—Not of a Kind. Fannie Hurst's *Anatomy of Me* will interest the many readers of this popular and prolific storyteller. It will also have value for beginning writers, for it describes the birth-pangs of some of Miss Hurst's books and the long, discouraging period she lived through before she arrived as one of the country's highest paid novelists. Her middle-class, Jewish, St. Louis background, the strong family tie which bound this only child to her doting parents, her marriage—kept secret for years—to a man who suited Fannie but not her parents, all this throws light on a unique and richly talented personality.

In *On My Own* (Harper, $4) Eleanor Roosevelt writes of the things and people that have filled her life since the death of her husband in 1945. The account of her incredibly full and effective days reveals a personality both shrewd and kind, and one that has grown rich in wisdom with the years. Also appearing in 1958 was *Eleanor Roosevelt: Her Life in Pictures* (Duell, Sloan, and Pearce, $5.95), by Richard Harrity and Ralph G. Martin. The pictorial chronicle begins with babyhood and continues up to the present.

The Memoirs of Field Marshal Montgomery (World, $6) is a great commander's story of the principal events of World War II. Not the least controversial part of the book is Monty's criticism of the military strategy of President Eisenhower.

Miscellaneous

Concerning the U.S.S.R. John Gunther has visited the Soviet Union on four different occasions. His newest book, *Inside Russia Today* (Harper, $5.95) synthesizes his earlier and his more recent findings. This volume of 535 pages makes enthralling reading. It presents a concise resumé of the whole span of Russian history, describes the races making up the sixteen Soviet Republics, and proceeds to cover the current situation as regards politics, education, industry, agriculture, and the arts.

FANNIE HURST added to her laurels in 1958 by publishing her autobiography, *Anatomy of Me*.

It Happened in America. Disaster is not a pleasant theme, but Robert Cromie, in *The Great Chicago Fire* (McGraw-Hill, $5), writes a lively chronicle of that spectacular blaze. Mr. Cromie has a reporter's eye for the revealing act and phrase, and through painstaking research has amassed innumerable details which add to the vividness of the story, as it unfolded hour by hour, block by block, on that October night in 1871: heroic deeds far beyond the call of duty, but also

skullduggery, frustration, defeat, and the madly comic. Chicagoans did and saw things that night that were never to be repeated. High winds, exhausted firemen, ebbing water pressure, and poor equipment combined to worsen the catastrophe. But the aftermath of the great conflagration was heartwarming: supplies pouring in from every part of the country, and Chicago's stalwart citizens starting to rebuild, and, in the main, to build better, almost before the embers were cold.

Gold Rush. Another piece of Americana is Pierre Berton's *The Klondike Fever* (Knopf, $5.75). Alaskan statehood has again brought this section of the Far North into the public eye, and readers of all ages will eagerly follow the saga of the Klondike gold rush. Today, men are invading the Far North because of defense programs and in pursuance of certain scientific goals. It is doubtful if the improbable chance of finding gold would draw many on to face the dangers of frostbite, starvation, or being shot in a bar-room brawl. Here is the story of thousands of men pitting their puny strength against these and other perils. The astonishing thing is that so many survived to go on successfully to other fields of endeavor. After Alaska, perhaps any challenge seemed easy. The author has included a bibliography and an index.

T. S. ELIOT, Anglo-American poet and critic, reached his 70th birthday in 1958. His friends and admirers honored the occasion by publishing a volume of tributes.

Venture into the Past. Thor Heyerdahl, author of *Kon-Tiki,* this year published another absorbing narrative, this time about his experiences in trying to probe the past of Easter Island, in the South Pacific. *Aku-Aku* (Rand McNally, $6.95) records the adventures of Heyerdahl and his companions with the island people, and their excavations of the mysterious stone sculptures. There are interesting illustrations. Though scholars may disagree with Heyerdahl's theories, the average reader will find nothing to criticize in the new work.

Crusading for Peace. In his *No More War* (Dodd, Mead, $3.50), Linus Pauling states his thesis in the title. There will never again be a great war, he says, if the world's people can be made to realize that its inevitable outcome would be the destruction of civilization and the mutilation of the human race. Nobel Prizewinner Pauling has been crusading against nuclear tests for years, heading a group of nearly 1,000 scientists who share his views. In his new book he deals broadly with the questions of war and peace, and the plain choice between total destruction and a more abundant life for all mankind.

National Book Awards. The National Book Awards, now in their tenth year, are the only industry-wide honors in the book publishing field. They are sponsored by the American Book Publishers Council, the American Booksellers Association, and the Book Manufacturers'

 BOOKS

Institute. The three awards, for fiction, non-fiction, and poetry, each carry a $1000 prize. The judges are persons eminent in these fields. In 1958 the prize for fiction went to John Cheever, for his novel, *The Wapshop Chronicle,* which concerned a New England family in its decline. Cheever's short stories are well known to readers of *The New Yorker,* but this was his first full-length book. Winner in the non-fiction category was Katharine Drinker Bowen, with her *The Lion and the Throne,* a biography of the 17th-century English jurist, Sir Edward Coke. Mrs. Bowen is the author of several earlier biographies which have been widely acclaimed. Robert Penn Warren, novelist, critic, and poet, won the poetry prize for his volume, *Promises*—1954-56.

Paperbacks

A Rich Variety. More and more standard books, classics, and even minor works of excellence are appearing in paperback form. Paperbacks have also invaded the textbook field.

The wealth of good books in inexpensive editions does not mean that there has been a revolution in American reading habits overnight. It does mean, that for those who want them, the supply of good books in inexpensive form is getting richer with every passing year. As of now, trashy paperbacks dominate most retail outlets—the racks in supermarkets, drugstores, and bus stations. These outlets as a rule take whatever assortment is sent them. They are not in the book business and haven't time or interest to order specific titles. Given greater public demand for better books, they might do so. The real bookstores carry an impressive array of good paperbacks, and many bookstores in cities and college towns specialize in them exclusively.

Paper Editions Corporation of New York City is the chief distributing firm for the paperbacks. It handles some 3,000 titles of 72 different publishers. This company is interested in opening new markets in smaller towns, to make paperbacks available in regions where books in hard covers have never made an entrance.

A useful and interesting development in this field are the paperback book clubs sponsored by *Scholastic Magazines*—The Teen Age Book Club, the Arrow Book Club, for fourth to sixth grades, and the I-Spy Rangers, for grades three to six. All fill a real need. By club rules, a minimum of 15 books must be ordered at one time. The ordering and distribution of the books is handled by a committee of pupils, thus adding no chore to the teacher's work. More information about paperbacks and full details about pupils' book clubs may be secured from Scholastic Book Services, 33 West 42nd St., New York City. For a listing of good new paperbacks, see Guide for Readers section.

CHILDREN'S BOOKS

by

VICTORIA S. JOHNSON

Director of Educational Research and Services
Tangley Oaks Educational Center

For Three-to-Six-Year Olds. *A Friend Is Someone Who Likes You,* by Joan Walsh Anglund. (Harcourt, $1.75.) "A friend is someone who likes you. It can be a boy . . . It can be a girl . . . or a cat . . . or a dog . . . or even a white mouse." So begins this enchanting little book with simple text and appealing pictures in color and in black and white. The book tells of the many happy surprises just waiting to be discovered if the small child looks about the world around him. *How Do I Go?,* by Mary Ann & Norman Hoberman. (Little, $2.50.) An outstanding picture book. Three-color drawings on every page show how I go—in planes and trains, in boats, buses, and taxicabs, in subways, ferries, and elevators, but es-

pecially on a fine red tricycle. *Little Bear's Sunday Breakfast,* by Janice. (Lothrop, $2.75.) Here is the classic nursery tale of the three bears with the theme reversed. This charming picture book tells of the adventures of Little Bear who wakens much too early from his winter sleep and ventures forth to find something to satisfy his hunger. He enters Goldilocks' house and makes himself at home. *Petunia, Beware!,* by Roger Duvoisin. (Knopf, $2.95.) Wonderful Petunia, that foolish goose beloved of the picture book set, returns to take part in a drama based on the old story—that the grass grows greener in the next pasture. One day Petunia decides to investigate and in her search for tastier grass meets the woodchuck, the rabbit, the chipmunk, and the deer. Though warned by her friends, Petunia proceeds to wander far afield until she meets the fox, the raccoon, the bobcat, and the weasel. These rascals all want to protect her, so they say, but commence to fight among themselves and give her a chance to fly away home, much wiser for her near-disaster. *Small One,* by Zhenya Gay. (Viking, $2.) The story of a little cottontail rabbit who disobeyed his mother and got into trouble. Small One learns his lesson at last—even the hard way! *Something Special,* by Beatrice Schenk de Regniers; illustrated by Irene Haas. (Harcourt, $2.25.) *Something Special* is just that. A treasure for the very young who can't fail to be enchanted by the imaginative quality of its verses and illustrations. Many of the verses have a catchy, folk-rhyme humor. A small world complete in itself may be found in the nine sections of this book. The colors, the sound, the smells, the textures, the silences, the laughter, and the dreams of childhood. *Umbrella,* by Taro Yashima. (Viking, $2.50.) A simple story of the gifts Momo received on her third birthday. She waits through many sunny days for the rain to fall so that she can wear her new red boots and carry her new red umbrella. Finally, the rainy day comes and the dancing raindrops make wonderful music as they fall on her umbrella. Both the young listener and the fortunate adult who reads the story will enjoy the full color illustrations and the poetic quality of the prose. *What Do You Think?,* by Rainey Bennett. (World Pub., $2.50.) An entertaining excursion into a small child's world. Tony and his dog Zebbie try to find out what thinking is. Is it reading? . . . Is it wondering? . . . Can wishing be thinking? . . . Or maybe remembering? . . . Maybe looking is thinking. How Tony solved his problem and discovered what thinking is makes a delightful story. *Widget,* by Clare Turlay Newberry. (Harper, $2.50.) A very small but venturesome kitten emerges victorious in her encounters with a slipper and a teddy bear. But when she meets the puppy next door, Mother Cat has to come to her rescue.

For Six-to-Nine-Year Olds. *The Picnic,* by James Daugherty. (Viking, $2.50.) One afternoon Mr. and Mrs. Merryman Mouse and their children, Cheddar, Limburger, and Little Miss Swiss went on a picnic. After they had eaten their lunch, with cheese cake for dessert, they sang and danced. When they stopped to catch their breath, they heard a strange noise which turned out to be a huge lion snoring in his sleep. Everything would have been fine if little Cheddar hadn't wakened the lion by throwing an acorn and hitting his big nose. Then things happened fast! You will have a picnic too when you join this gay group. *Time of Wonder,* by Robert McCloskey. (Viking, $3.50.) In simple, rhythmic prose the author-artist tells of the changing weather and the changing seasons in his island home in Maine. The colorful, full-page illustrations are as poetic as the story. This book won The Caldecott Award and it surely was justly deserved. *The Puppy*

BOOKS

Who Wanted a Boy, by Jane Thayer. (Morrow, $2.50.) Here is the reversal of the boy-wants-a-dog-for-Christmas plot. Preschool children as well as second- and third-graders who can read it easily for themselves will be delighted with this story. Excellent pictures on every page. *The Golden Book of Nature Crafts,* by John R. Saunders. (Simon & Schuster, $1.95.) A nature book for beginners. This attractive book has stunning color photographs on every page accompanied by clear, easy-to-follow text. You will find chapters on rocks, insects, and animals. It also contains interesting chapters on feathers, spider webs, eggshell gardens, and twenty other craft ideas. Summer camp leaders, scout leaders, teachers, and youngsters will find this of use and value. *A Small Farm for Andy,* by Miriam E. Mason. (Macmillan, $2.75.) Things always seemed to happen when Andy was around. Curtains ripped, windows broke, and ashtrays fell. Mother didn't like it when Andy brought a "wild" horse to an important tea party and frightened a prominent townsman with his gun salute. Andy had fourteen cap pistols. But one day Andy's secret dream came true. A distracted neighbor, Mr. Noblitt, gave him a farm. Andy was delighted and left town and family, with his imaginary playmate Peeker. They planned to have a wonderful time by themselves hoping to catch Indians, bears and wild turkeys. Children will enjoy reading about Andy and how farm life changed him. *I Went to the Animal Fair,* selected by William Cole. (World Pub., $2.75.) A fine collection of animal verses to suit almost anyone. Printed on lovely green paper and illustrated with humor and charm by Colette Rosselli. *Dan the Weatherman,* by Jene Barr. (Whitman, $1.25.) Children can learn about weather and its effect on farmers, truck drivers, pilots, and other people, in this easy-to-read book. Illustrated by P. J. Hoff, well-

RAINEY BENNETT wrote and illustrated *What Do You Think?* for the three-to-six crowd. Mr. Bennett is widely known for his work as an artist in several media—oil, water-colors, and mural painting.

known throughout the Chicago area as the Weatherman of CBS-TV, the whimsical drawings on every page of this book add color and interest. Wind, rain, thunder, fog, snow, and a rainbow lure the reader. *What Dinosaur Is It?,* by Anna Pistorius. (Follett, $2.25.) Exciting full-color pictures, and an easy, interesting text about the great reptiles who once ruled the earth. Pronunciation guide. *Otto At Sea,* by William Pene du Bois. (Viking, $2.50.) Giant Otto is back with entirely new pictures in brilliant color, and lighthearted prose. Hilarious tale of a giant dog who is sent on a good-will tour of America. Although the liner sinks, Otto saves the day and is awarded a special medal by the Mayor upon his arrival in New York. *Science Can Be Fun,* by Munro Leaf. (Lippincott, $2.75.) Here is a book parents and their curious offspring should enjoy together. The simple

text, the funny drawings, the simple experiments, relate to things we see around us—people, animal life, plant life, food, and water; and the things we can't see—air, wind, gravity, magnetism, electricity, even atomic power! An informative first introduction to science.

For Nine-to-Twelve-Year Olds. *Nature Detective,* by Millicent Selsam. (Young Scott Books, $2.75.) There are fascinating mystery stories in nature, but you have to learn to solve them from the clues animals leave behind them—bits of hair, bitten-off twigs, tracks in the snow, footprints in the mud and sand, scratches on tree bark. This book shows you in accurate pictures, by Theresa Sherman, and in text what kind of clues to look for. A bibliography of nine books will help the beginning detective on into increasing awareness of clues to be found in the forest. *Danny Dunn and the Homework Machine,* by Jay Williams and Raymond Abrashkin. (Whittlesey, $2.95.) Another funny story about that engaging young fellow, Danny Dunn. It all starts the day Professor Bullfinch leaves for Washington, D.C., and entrusts Danny with the care of his semi-portable computer. Danny gets the bright idea of using the computer to do his homework. To salve his conscience he reasons that the long way of working things out with paper and pencil is old fashioned. His two companions, Irene Miller, the new girl next door, and his old friend, Joe, agree with him. As might be expected, Mrs. Dunn and the teacher, Miss Arnold do not go along with this theory. Ezra Jack Keat's illustrations project the same spirit of fun in this third hilarious story of a boy who often rues his actions because he jumps too quickly to conclusions. *Orphan, A Raccoon,* by Ezra Zistel. (Rand, $2.50.) Children have seldom been offered such a charming and completely enjoyable story. When Orphan, the motherless, hungry little raccoon wandered out of the forest to the home of the People, a new and exciting life began for all of them. Playful, affectionate, inquisitive, and mischievous, his adventures were a constant source of amusement and consternation to his People. He carefully washed the woman's gloves in his water dish; he deftly picked the man's pockets; he twisted the knobs off the radio, and tried to dig the voice out of the telephone receiver. There is sorrow and near tragedy when Orphan is stricken with distemper, but a thread of humor runs through the whole story like sunshine through the forest. The illustrations by Seymour Fleishman, too, capture the woodland atmosphere of the story. *Football for Young Champions,* by Robert J. Antonacci and Jene Barr. (Whittlesey, $2.95.) Here is a practical handbook for the young football player. Beginning with a brief history of football it explains the rules of the game, describes football formations, and gives instruction in fundamental techniques, directions for playing each position, and information on equipment, scores, and records. The emphasis is on touch football rather than the college or professional tackle type of game. *Nkwala,* by Edith Lambert Sharp. (Little, $3.) Nkwala, 12-year-old Salish Indian of the Spokan tribe, had failed so far to see the vision that would mark him as ready for manhood when the tribe was forced to emigrate to new land. The trek, encounter with strangers, and final achievement of Nkwala's manhood make an interesting story. *A Spy in Old Philadelphia,* by Anne Emery. (Rand, $2.95.) Based on historic facts, this story gives an authentic picture of life in Revolutionary days. Young Johnny Monroe, as fiery a patriot as any American boy could be, finds himself caught up in an exciting network of adventure and intrigue. He sees the American army retreating from Brandywine and watches the Battle of Germantown. He journeys to Valley

Forge and meets General Washington. He is captured by the British and is rescued by an American patrol. Dramatic illustrations by H. B. Vestal add further realism to this lively and fast-moving story. *Champion Dog Prince Tom,* by Jean Fritz and Tom Clute. (Coward-McCann, $2.95.) Prince Tom is a real dog who lives in Adrian, Michigan, with Tom Clute, his owner. He spends his life winning titles — including the greatest one of them all, National Field Trial Champion. The book tells the story of how this little blond cocker, once the runt of his litter, became one of America's best-known dogs. Excellent illustrations by Ernest Hart. *The Trouble With Francis,* by Beman Lord. (Walck, $2.50.) Francis Harrison Ward III decided that something had to be done about his name; it was always being mistaken for a girl's name and it was certainly not a name for a future big-league player. Since he could not shorten or change it the only solution seemed to be a nickname. This easy-to-read story, illustrated by Arnold Spilka, tells how Francis finally wins a nickname. *Magic Fingers,* by Lucille Mulcahy. (Nelson, $2.75.) Trouble had come to Natachee and her blind and feeble grandmother. The governor's badge of office, a treasured gift from Abraham Lincoln, had been stolen and Natachee's older brother was suspected. Then the blind grandmother is accused of witchcraft when, in desperate need of money, she not only taught Natachee the secret of fine pottery making but also found that her own fingers had lost none of their old skill. A good mystery story and an appealing picture of modern Pueblo Indian life. *Simba of the White Mane,* by Jocelyn Arundel. (Whittlesey, $2.95.) An unusual story of the great African plains and of Toki, a small African boy, who is lost from a safari, encounters the great lion Simba, and learns that it often takes more courage to conserve wild animals than it does to kill them. Black-and-white illustrations, sketched on the scene by Wesley Dennis catch the mood of the jungle.

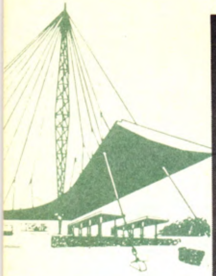
For Older Boys and Girls. *The Golden Hawks of Genghis Khan,* by Rita Ritchie. (Dutton, $3.) The story of a boy's stirring adventures in the year 1218 as he crosses Genghis Khan's great Mongol empire on horseback to win the symbolic Golden Hawks for his own country. Illustrated by Lorence F. Bjorklund. *Along Comes Spring,* by Mildred Lawrence. (Harcourt, $3.) Cory, a bright attractive girl in her first year of college spends so much time earning her way and studying that she does not have time for many social engagements. The way she finally

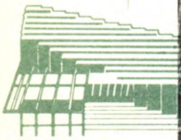
JENE BARR, author and educator, writes about the milkman, fireman, mailman, and, of course, about teacher. *Dan the Weatherman* is her latest book. She is the winner of the Seventh Annual Midwest Award presented by the Children's Reading Round Table of Chicago for outstanding achievement in the field of children's reading.

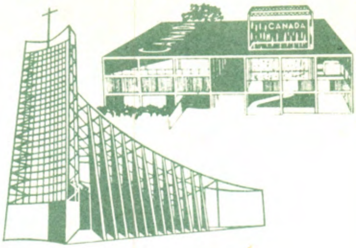
YOUNG VISITORS to Chicago's Miracle of Books are greeted by Victoria S. Johnson, of the Tangley Oaks editorial staff, who originated and portrayed the popular character, the "Book Witch."

does achieve social as well as academic success makes the end of this story well worth waiting for. *Galileo and the Magic Numbers,* by Sidney Rosen. (Little, $3.50.) The dramatic story of Galileo's struggle to establish scientific truth based on experiment. *Confidential Secretary,* by Harriett H. Carr. (Macmillan, $2.75.)

Joyce Reeves finds working in a Washington agency a stimulating but often hazardous occupation. In her job of private secretary Joyce's loyalty to her boss was challenged when she discovered evidence of unethical practices. She faces the problem of maintaining her integrity while remaining faithful to her job. In the process, she finds herself a beau. *Rifles for Watie,* by Harold Keith. (Crowell, $3.75.) This book was awarded the Newberry Medal as the most distinguished book for children published in the United States during 1957. A story of the Western Campaign in the Civil War and the part played in it by the Cherokee Indians under Stand Watie. Sustained excitement, depth of interest, and excellent characterization make this book a fine addition to Civil War fiction. *Sand In My Castle,* by Shirley Belden. (Longmans, $2.75.) Freeing herself from her mother's apron strings was not easy for Judith, but a summer job in Cape Cod where she met new friends helped her acquire the self-reliance she needed. *The Silver Branch,* by Rosemary Sutcliff. (Oxford, $3.) Ancient Britain under the rule of Roman conquerors is the setting for this book which is based on actual records. The book has particular value for those studying Latin or ancient history. Would appeal more to boys because of its masculine emphasis. *White Water,* by Vivian Breck. (Doubleday, $2.95.) To some readers foldboating may be only a word at the beginning of this romance for young people, but when the book has been read it will be as fascinating a sport to the reader as to Andrea Dawson, the heroine of this unusual sport and love story. She has to meet the challenge of running the white water in Lodore Canyon in Colorado to become a well adjusted person. *Guide to Rockets, Missiles and Satellites,* by Homer E. Newell, Jr. (Whittlesey, $2.50.) An excellent directory giving facts about the various rockets, missiles and satellites, in action today. You will find histories and uses, measurements, weights, manufacturing statistics and photographs of each object described. They are arranged in alphabetical order. There are many books on the subject but none presents the material in such concise, handy format. Indexed. *Mountain Stallion,* by Logan Forster. (Dodd, $3.) Here is a story that has the sweep and grandeur and beauty of its setting, the Southwest. A delicately woven tale of excitement and mysticism. This is one of the best horse stories in years. The chase, capture and breaking of Victorio, the wild stallion, will keep the reader engrossed to the last page. *Head High, Ellen Brody,* by Elisabeth Hamilton Friermood. (Doubleday, $2.95.) Here is a novel for teen-age girls, a thoughtful story, with humor and suspense. Ellen, ambitious and talented, tries to follow her grandmother's advice, "Hold your head high, Ellen Brody. You've got good stuff in you. See that you make the most of it." She dreamed of becoming a successful fashion designer but instead found herself helping young John Morgan, a protege of Jane Addams, run the new settlement house modeled after Hull House. Ellen's holiday visit to Chicago holds special interest with its description of Hull House activities, life in high society, and the tragedy of the Iroquois theater fire. *The Commodore's Cup,* by Stephen W. Meader. (Harcourt, $2.95.) Exciting sailing races, swift-paced action, and how Luke Cramer came to have a Comet class boat all of his own, make this an unusually fine story. The New Jersey coast, which Mr. Meader knows at firsthand from living there and sailing its waters, is the setting of this book for all who love adventure and the out-of-doors. Sailing terminology may be unfamiliar to the landlubber, but the story is one that can hardly be put aside until the last page is read.







BRUSSELS FAIR atomic symbol lighting up the night sky.

BRUSSELS FAIR

A Fair's Function. A public debate was carried on in U. S. newspapers in the summer of 1958 as to which of the competing giants had the better exhibition at the Brussels World's Fair—the United States or the Soviet Union. This had the unfortunate effect of overshadowing the event itself. The first international exposition of this type since the one held in New York City in 1939-40, this was also the first of the atomic age. Its symbol was the atomium, representing a molecule of metal, and its theme "A New Humanism."

The function of a world's fair is to bring the nations of the world together in an atmosphere of peaceful exchange. Each national exhibit is designed to portray a special way of life and an idea of happiness. That the Brussels Fair succeeded in promoting general information as well as understanding among peoples is beyond question. Millions of visitors, at sixty cents a head, trooped through the gates from April to October. They came from everywhere, with a preponderance from the European countries and the British Isles. They studied exhibits, took photographs, ate and drank, rested and reflected. And every evening, if any energy remained for night life, they could choose from an array of the world's very best entertainers.

The clean and cosmopolitan city of Brussels was refurbished for the great occasion. Bridges were built or repaired, roads widened, hotels enlarged. A fast and frequent helicopter service from France, West Germany and the Netherlands to an airport within the fair grounds was operated by Sabena Airfleet. The Belgians, to whom the role of host comes naturally, had taken pains to provide comfortable accommodations for their guests, although some of them were housed 60 miles away. A camping and trailer area for 17,000 persons and their vehicles was set up. The 450 acres of the fairgrounds will be maintained permanently as a public park.

BRUSSELS FAIR

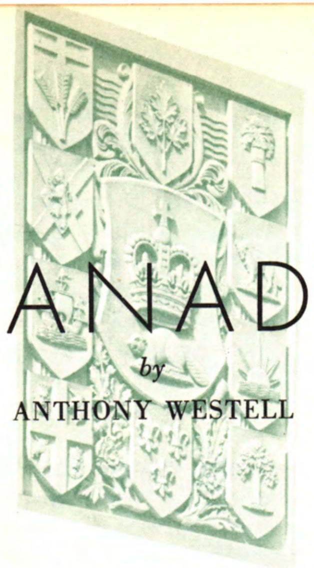
Varied Entertainment. Forty-seven nations and seven international agencies put on displays representing their achievements and purposes. The national pavilions were of advanced architectural design and highly diversified. In addition to the exhibits of the fair, there were continuous cultural events and entertainments that included music, ballet, and folk dancing, films, fashion shows, sports events, flower shows, and even an international fireworks competition. Musically, the United States was represented mainly by the Philadelphia Orchestra, the American Ballet Theatre, and the New York City Center Opera Company, which gave performances of "Susannah" and "Carousel." Also, several American plays, important films, as well as individual performers, were presented in the American Pavilion Theatre, on the grounds. Britain sent its Royal Ballet, and the BBC Opera Company. The Old Vic Theatre Company went over to play "Hamlet" and "Henry VIII." The Soviet Union offered the Ukrainian Song and Dance Ensemble, the Moscow State Symphony Orchestra, the violinist, David Oistrakh, and many other top performers.

Original in Architecture. The American pavilion, a photograph of which appeared in the 1958 Year Book, was designed by the architect Edward D. Stone. Flanked by pool and fountains, this original structure was circular in shape, 440 feet in diameter and 226 feet high. Its atmosphere was gay and pleasant, suggesting spaciousness and repose, with attractive balconies, and comfortable chairs. Congress had appropriated about $15,000,000 to cover the cost of U. S. participation, in contrast to an estimated cost of about three times as much for the U.S.S.R. exhibition. American girls, each speaking two or more languages (one of which had to be French), were employed as guides and hostesses. The exhibits were not remarkably impressive. Industrial and agricultural production were underplayed. Everybody knows the United States has an advanced technology, the exhibit seemed to say, so why boast about it? Vacationers are more interested in relaxation and play than in staring at great machines and statistical charts. Were the planners right or wrong? Visitors disagreed.

American Specialties. A fashion show, put on by *Vogue,* and a typical drugstore, with a counter where expensive milk shakes and hamburgers were served, brought charges of triviality. In installing the drugstore, the U. S. planners perhaps recalled that at the recent trade fair in Yugoslavia, it was the American supermarket that was the most popular of all displays. A voting machine was an exhibit that attracted much interest. The art exhibit, partly folk art, partly modern abstractionists, was praised by some Europeans, but was criticized by many Americans for not being broadly representative.

Soviet Displays. The exhibitions in the solid and factory-like Soviet building, were of a more serious nature, and gave the impression of a dynamic, hard-working people, proud of their achievements. A model of Sputnik I loomed up near the entrance, and there were other displays in the earth-satellite field. Models of the new Soviet jet airliner, of a two-toned sedan (not in production), and a variety of mechanical and industrial models underlined progress on many fronts. A giant mural had for its backdrop Moscow's impressive skyscraper university. The whole exhibition was a graphic warning of competition on the economic front.

Belgium's own exhibit, together with the cluster of pavilions devoted to the Belgian Congo, was extremely interesting. The Netherlands exhibit, with a dramatic presentation of its struggle with the sea, and the West Germany exhibit, showing its phenomenal industrial recovery, were outstanding.



CANADA

by
ANTHONY WESTELL

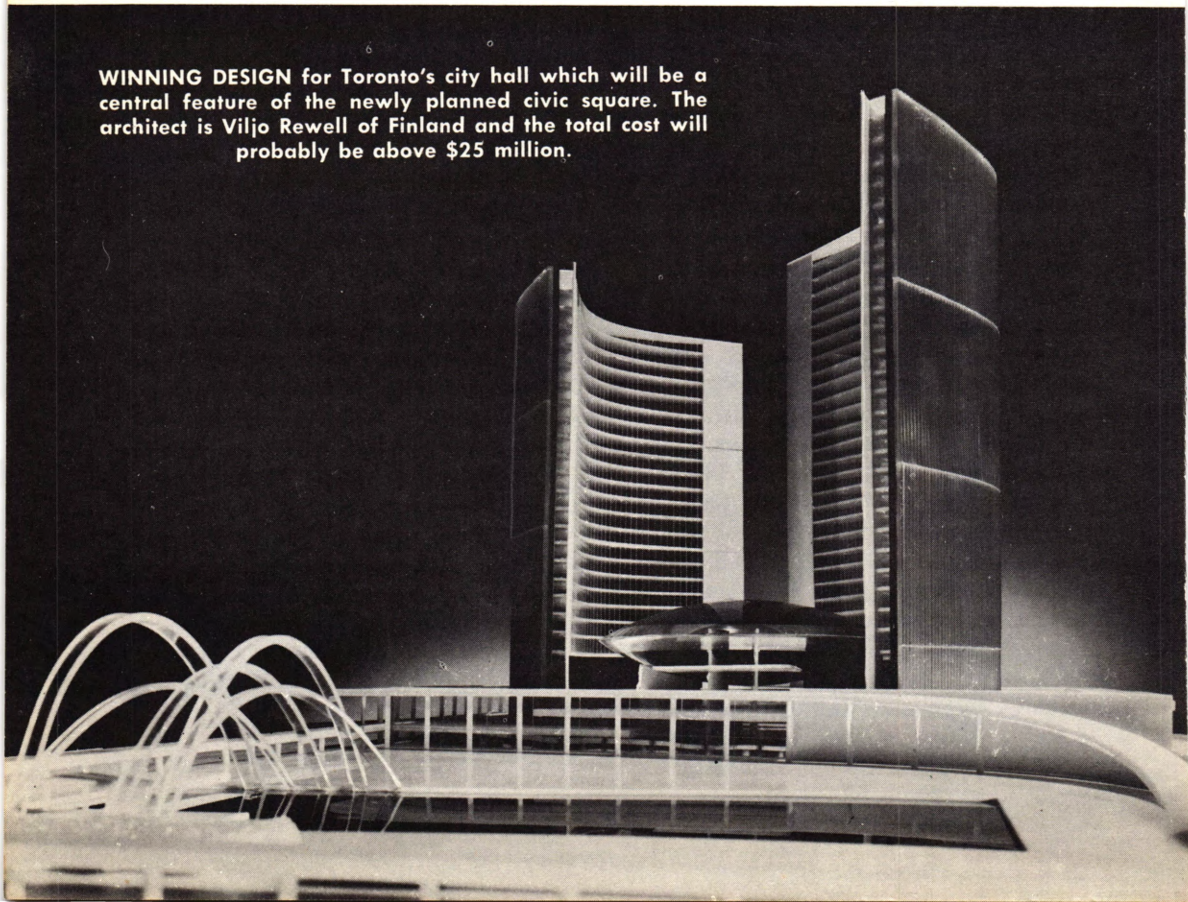
A New Balance. For Canadians, 1958 was a year to be viewed with mixed emotions.

The country underwent a political upheaval, but rapidly found a new balance. It greatly increased its status in the British Commonwealth of nations, but relations with the United States deteriorated. By year's end it was making a spirited recovery from a business recession, but unemployment was still high and strike action spreading. On balance, 1958 was a good year. But it was not a boom year. There was progress but also backsliding.

An account of the year must begin with the March 31 general election. For this event set in motion forces and policies which guided and influenced many of the developments later in the year.

The Prime Minister, Mr. John Diefenbaker, first won office in the election of June, 1957. Then, as the dynamic new leader of the Progressive Conservative party, he sparked a Tory revival which bundled the Liberal party out after 22 years continuously in office. It was a great victory, but Mr. Diefenbaker had only a minority government—113 seats in the 265 member House of Commons.

Under Canada's Parliamentary system, a government defeated in the vote on a major issue in the Commons must resign. This made Mr. Diefenbaker's posi-



WINNING DESIGN for Toronto's city hall which will be a central feature of the newly planned civic square. The architect is Viljo Rewell of Finland and the total cost will probably be above $25 million.

CANADA

tion clearly intolerable. He resolved after only a few months in power to ask the electorate for a more decisive mandate.

Diefenbaker's Victory. The Prime Minister's platform technique has sometimes been likened to that of a traveling evangelist, and he made full use of his oratorical talent in the campaign. He sparked the public imagination with a vision of the vast frozen northland opening up for development. Roads and railways, he promised, would be pushed into the north to unlock the Arctic "treasure house." He made good use of Canadians' new-born nationalism by emphasizing the British Commonwealth connection and promising greater independence of the United States.

This shrewd mixture proved just what the voters wanted. They gave Mr. Diefenbaker the greatest election victory in Canadian history. The morning after polling day there were 209 Conservative Members of Parliament. Liberal representation had been slashed from 104 to 48. The Social Credit party lost all its 19 seats, and Cooperative Commonwealth Federation (Socialists) was reduced from 25 to eight seats.

With this great victory under his belt, Mr. Diefenbaker turned to deal with a threatening economic situation, and at the same time implement the grand plan he had outlined during the campaign.

Economic Condition. Canada is primarily a producer of raw materials, and its economy is closely tied to the manufacturing industry of the United States. Consequently, the business slowdown south of the border was soon felt in Canada's mines, oil fields, and forests.

Unemployment climbed steadily through the winter of 1957-58 and remained unusually high during the summer. This presented a serious picture at the onset of the 1958 winter.

The government took what action it could but with little result. Unemployment insurance was extended. Public works programs to make jobs were launched by governments at the federal, provincial, and municipal levels. Immigration was severely restricted. Credit restrictions were removed.

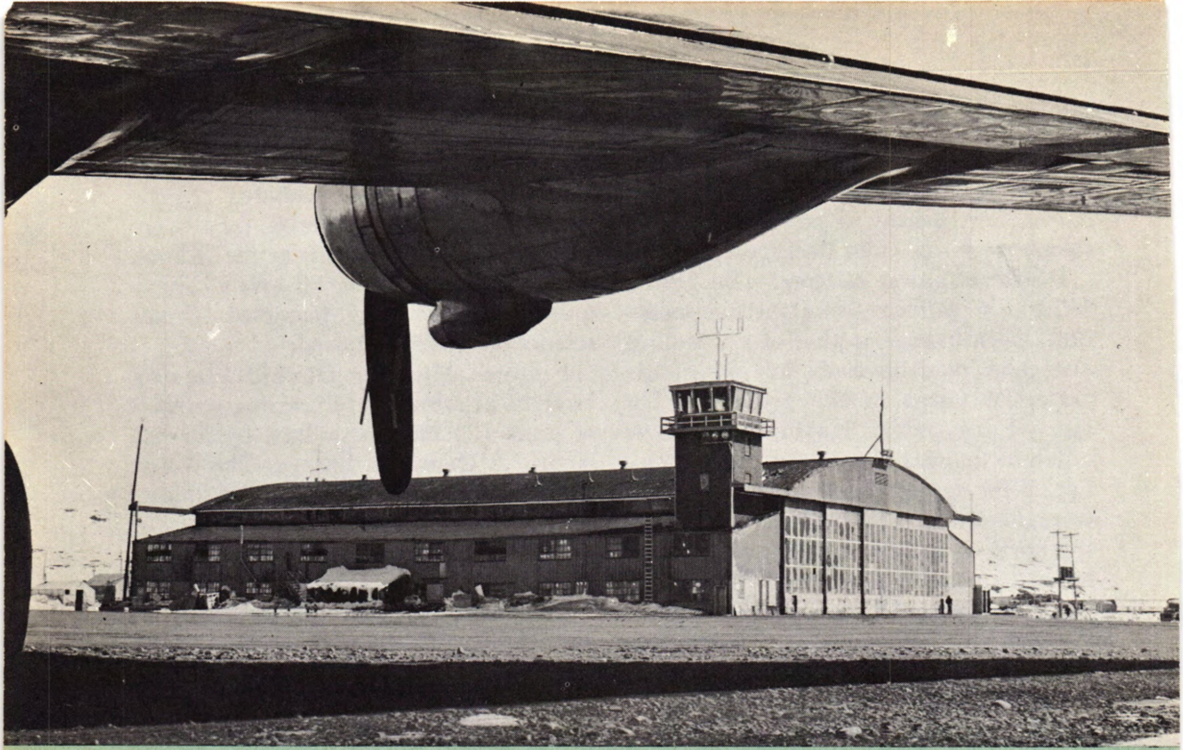
Finance Minister Donald Fleming brought in a budget forecasting a deficit of some 700 million dollars, by far the largest in Canadian history. The deficit was intended partly as pump-priming, but was also due to implementation of the government's promises to ease taxation and expand social services.

Business itself recovered from the recession surprisingly well, as it followed the upswing in the United States. The United States recession, naturally, cut down money available for investment in Canada. But nevertheless 1958 still saw great development.

A Mighty Dam. After nearly a century of talking and hoping, a start was made finally on the mighty South Saskatchewan River dam project. The power and irrigation dam, to be built about 60 miles from the city of Saskatoon, at a cost of 250 million dollars, will create an artificial lake 140 miles long, and its turbines will produce 150,000 horse power for electricity. It is expected to transform the economy of the province by watering 500,000 acres of dust bowl land and providing cheap power for industry.

St. Lawrence Seaway. The great St. Lawrence Seaway project came within sight of completion during the year, when a 30-mile stretch between Cornwall and Iroquois, in Ontario, was flooded to make the new Lake St. Lawrence. Whole towns were moved to higher ground to permit creation of this new lake, just across the river from New York State.

The Seaway will be opened this year (1959) by the Queen and President Eisenhower. Rather ironically, the year 1958 also saw the demise of Canada's once-mighty merchant shipping fleet.



CONTROL TOWER and main hangar at Frobisher Airport, Baffin Island. Frobisher is known as the "crossroads of the Arctic" and is extensively used by airlines flying the transpolar route.

Canadian National Steamships sold off the seven ships it had operated on the run to the West Indies after a protracted sailors' strike had kept the vessels in harbor. The ships were sold to a Cuban firm and the Canadian flag was seen no more on the high seas, but only on the Great Lakes and inland waterways.

Development was not restricted to industry and commerce. A communications skyway consisting of 139 microwave towers spaced across the country from east to west coasts came into operation, making the longest TV network in the world.

Metropolitan Growth. Canada's business capital, the thriving metropolitan area of Toronto, with a population approaching 1,500,000 and a good claim to be the fastest growing city in North America, embarked upon ambitious expansion programs.

A new subway, to cost between 200 and 300 million dollars, was approved by the area's Metropolitan Council, a federation of 13 municipalities which has aroused much interest in the United States. The new subway will run across the city from east to west and link up with the post-war, north-south subway. The city also advanced its plan for construction of a new 40 to 50 million dollar civic center. The international competition to design the new city hall turned out to be the largest architectural competition ever held. It was won by a Finn, Viljo Rewell, whose design consists of two curving skyscraper towers grouped around a graceful, low-domed building which will hold the council chamber and executive offices.

In the Far North. Development in the north was necessarily slow. So much preparatory work has to be done before dramatic exploitation of the riches of the Arctic and sub-Arctic can be expected.

In the first stages, development is largely based upon the DEW (Distant Early Warning) radar line. But a start

has been made on several of the first Arctic cities. In the east there is Frobisher, which is already a considerable air base, used by airlines flying the trans-Polar route. Now it is being developed as an administration center.

The government has outlined plans to build a residential and commercial center, which will be designed so that inhabitants can live without going outdoors in the bitter winter cold. Perhaps the best sign of Frobisher's growth was that a commercial bank opened a branch there; the manager flew in with his capital in a suitcase.

Away in the North West Territories Aklavik was also undergoing steady development as an administration center. Further to the south, yet still in remote, sub-Arctic country, a dozen or more centers were establishing themselves. Highways and railways pressed northwards.

There were reliable although unconfirmed reports that the German industrialist, Krupp, and the Canadian-born, United States financier, Cyrus Eaton, had signed a joint agreement to exploit iron ore deposits on a vast scale in the Ungava region of far northern Quebec.

The government indicated that it has great hopes for the use of atomic reactors to provide power for the new northern cities.

Foreign Relations. Mr. Diefenbaker

SKILLED CRAFTSMEN are the Eskimos of Frobisher Bay, here shown producing carvings in soapstone and ivory.

made it abundantly clear during the year that he considers himself one of the great leaders of the British Commonwealth. Immediately after his first election he attended a conference of Commonwealth Prime Ministers in London.

He came home burning with enthusiasm for expanding Commonwealth trade and Canada's role in political leadership of the "family." He was widely reported as saying that it was his firm policy to switch 15 per cent of Canada's business away from the United States to Britain, but later said that he had never tied himself to a firm figure. Like many Canadians, he is worried at Canada's dependence upon the United States economy, and the extent to which United States business is buying up Canada's natural resources.

Canada buys far more from its southern neighbor than she sells. The deficit is made up only by United States investments in Canada. To Mr. Diefenbaker and others this is like selling a birthright to buy shiny new consumer goods. He attacked United States business for complying with United States law by forbidding Canadian subsidiaries to do business with Communist China, which would be perfectly all right under Canadian law. There were charges that United States owned firms in Canada were refusing to contribute to local charities because their parent companies had already paid their cash allocated for charity to United States funds. There were threats to compel United States companies in Canada to sell shares to Canadians, hire Canadian staff, and take Canadians onto their directorial boards.

United States programs for disposing abroad of agricultural surpluses were said to be cutting into traditional Canadian markets for wheat and other produce. And there was much annoyance when the United States imposed restrictions upon the import of Canadian oil.

All this was partly the cause and partly the effect of newborn Canadian nationalism. Canada, a young country but growing fast, was flexing her muscles and beginning to resent (and perhaps envy) her mighty brother to the south.

Relations between the two countries were slightly strained for a time, but clearly no lasting damage was done. To help smooth things over, President Eisenhower came to Ottawa, and arrangements were announced for closer consultation on several levels. Mr. Diefenbaker's affection for the Commonwealth did not lessen, however. A very strong trade mission went to Britain, and a British mission returned the visit.

In September, at Mr. Diefenbaker's suggestion, Commonwealth finance ministers met for two weeks in Montreal to discuss mutual-help schemes. As one result, Canada agreed to take a much larger part in supplying aid to the underdeveloped members of the family. The new West Indies Federation is particularly Canada's responsibility.

In the international field also, Mr. Diefenbaker strove to make Canada's weight felt. He offered Canada as the site for a Summit conference. And in October he set off on a seven-week, round-the-world tour of Europe and the Commonwealth. His regular correspondents abroad included the Russian leader Khrushchev, and Canada continued to play an important mediatory role at the United Nations. It is in the key position of being a geographical neighbor of both the United States and Russia. Canada also is a bridge between Britain and the Commonwealth, and the United States.

Distinguished Guests. There is perhaps no better way of assessing Canada's increasing importance in the world than to inspect 1958's list of distinguished guests. The Queen Mother dropped in on her way to Australia. Princess Margaret went to British Columbia to take part in cele-

a rash across the country. On the west coast, a shipping strike cut communications and forced government intervention. In Hamilton, Ontario, the steel capital of Canada, steel workers walked off the job and stayed out for many weary weeks. Toronto's busy construction industry was closed by a dispute involving both strike action and a lockout. The free world's greatest source of nickel was closed at Sudbury, Ontario, by a strike. Ontario was even deprived of beer for several weeks by a dispute involving brewery distribution workers.

The industrial troubles were seen as a reflection of the changing economic picture. With rising unemployment and the recession cutting into profits, management felt at its strongest since the war and adopted tough bargaining attitudes. Organized labor was doggedly determined to give up none of its post-war gains, and argued that higher wages were necessary to stimulate consumption, spur the economy, and thus restore employment and profits.

Another very significant indication of labor's restlessness was the decision to explore the idea of a new national political party. Although some provincial union organizations backed the CCF in the federal election, there was no national campaign by labor. But the labor movement was greatly disturbed by the crushing electoral defeat of the socialists, and the Canadian Labor Congress at once agreed to begin exploratory talks with a view to absorbing the CCF into a new, broadly-based, labor-farmer party.

Farming. In agriculture, a drought seriously threatened the wheat growers of the Prairie Provinces, and there was much talk of a return to the dust bowls of the depression years. Late rains, however, produced a last minute miracle and saved the harvest. There was also an improvement in the wheat surplus picture which has bedeviled farmers for so many years. A more aggressive disposal policy got the grain moving out of the storage bins. Britain indicated that she was willing to consider re-entering the International Wheat Agreement, and Communist China appeared as a useful customer for Canadian grain.

There were still complaints about the dumping of United States fruit and vegetable produce on the Canadian market, and price supports were introduced under new legislation to assist Canadian growers.

Disaster. In a year which produced many forces—political and economic—tending to divide the nation, there was one event which united the nation as seldom before—the tragedy of a coal mine collapse in the little, hard-luck town of Springhill, Nova Scotia. In 1956, 39 miners were killed in the mine there, the deepest in North America. Early in 1958, a fire wiped out the business center of the town of 7,000 population. Then, in October, another collapse hit the mine when 174 men were at work. Eighty-one men came out at once. Six days later, when all hope had been abandoned for the rest, 12 more men were found alive and brought out. The second miracle came nine days after the collapse when seven more men were rescued. The whole nation, and millions of people in the United States, watched the continuing drama for hour after hour on television. It was a great emotional, perhaps spiritual, experience.

Canada, a young giant of a nation, still pioneering new frontiers and composed of many ethnic groups pursuing their own regional interests, often lacks a central, unifying force. The Anglo-Saxons of British Columbia, for example, have little in common with French-speaking Quebec. Springhill, if only temporarily, captured the emotions of the whole nation, and brought the realization that all are Canadians.

Careers...

CAREERS IN JOURNALISM

by THEODORE PETERSON
Dean, College of Journalism & Communications
University of Illinois

More Openings Than Graduates. One spring day in 1958, the publisher of a California newspaper began a circuit of the schools of journalism in the Midwest to hunt for talented young persons for his staff. He was not alone. That same spring at least two major Eastern publishers of magazines sent their representatives as far as 2,000 miles afield to recruit new employees for their editorial and business staffs. A metropolitan daily newspaper sent its personnel officer 500 miles away in search of help. And there was scarcely a trade association in the communications industries—newspapers, magazines, advertising, broadcasting—that did not have a committee working closely with educators to get its share of available graduates.

In schools of journalism across the United States, job placement officers were listing more job openings than they had graduates. One school listed eleven unfilled positions for every graduate. Several listed two, three, or four.

The communications industries have expanded enormously over the past 40 years. Those years have seen the birth of radio and television, the rise of the house organ into an important and no doubt permanent form of business communication, the growth of large-scale national advertising, the development of public relations, and the emergence of pictorial journalism. Each of those fields has increased the demand for persons with journalistic talents.

As the demand for journalists has increased, enrollments in schools of journalism have dropped sharply. Schools and departments of journalism had their peak year in 1948. Since then, the total enrollment in all journalism schools has declined 49 per cent, according to a survey made by the American Society of Newspaper Editors. Enrollments in ten representative schools were down about 56 per cent, according to another study.

Why the drop? No one really quite knows. Some observers say that the glamour of science and engineering, and the attractive salaries in those fields, have lured young persons away from journalism. Others say that young people have been told that journalism is an overcrowded profession, as indeed they have been. Still others say that young persons have been discouraged by what they think to be relatively low pay in journalism.

Salary Scales Vary. Traditionally, the pay has been low. For years, jobs in jour-

HARRY S. ASHMORE, executive editor of *The Arkansas Gazette*, won a Pulitzer Prize in 1958 for the forcefulness and clarity of his writing during Little Rock's integration crisis.

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nalism paid more heavily in glamour and excitement than in money. But salaries, while still low compared with those in other professions, have been moving up. In 1957, in its fifth annual survey, the *Journalism Quarterly* reported that starting salaries were still on the increase. The average salary for a journalism graduate on his first job was then $342 a month. That figure was an average for all types of journalistic specialties, however, and for all parts of the nation. Actually, salaries vary widely with the type of job, the section of the country, the background of the employee, and so forth.

A fairly typical starting salary for a beginning reporter on a daily newspaper, for instance, is $75 to $80 for a 40-hour week. Weekly newspapers may also pay that much or even slightly more, but the reporter works until his job is finished, not any set number of hours. An experienced reporter on a large paper may earn $200 a week, an executive $10,000 a year or more.

Technical and business magazines pay beginners around $4,000 a year. Depending on their skill and experience, the various editors can command anywhere from $5,000 to $18,000 a year. The advertising executive of the publication will earn about $1,000 a year more at either end of the scale.

In 1957, some schools of journalism reported their graduates were going into jobs in public relations at starting salaries of $5,000 to $6,000 a year. Salaries in this field are generally higher than on newspapers, from which many industries recruit public relations personnel. A top public relations executive can earn $50,000 a year or more.

When a young person thinks of journalism, he generally thinks only of newspaper work — and often of just such phases as foreign correspondence or sports writing, at that. While any review of the opportunities in journalism is necessarily incomplete, here are some of the areas those interested in journalism might consider.

Newspapers. A large share of the young persons becoming journalists still begin on one of the 1,755 daily or almost 9,000 weekly newspapers in the United States. Newspaper work can be a useful and satisfying end in itself. Or it can be a wayplace on the road to a position on a magazine, in public relations, or in other fields.

Unlike the Hollywood stereotype, the typical newspaperman is a well-educated craftsman, often a specialist, who works regular hours for a regular salary and is as interested in his home, family, and community as are his neighbors. He may work under pressure, but not incessantly. He usually takes great pride in his calling and has a strong desire to print the truth as he sees it.

The size of staff varies from newspaper to newspaper. The New York *Times* editorial staff includes some 20 editors, 600 reporters, and 80 copy editors. A small weekly may be pretty much a one-man operation.

Even a fair-sized daily has specialists in charge of its operations. The editor—sometimes called the executive editor—is responsible for the entire news and editorial side of the paper. He is aided by a managing editor, who has responsibility for the day-to-day performance of the news room. The city editor has charge of the reporters who cover the local news. The state editor supervises the correspondents, usually part-time, who contribute news of the area in which the paper circulates. The wire or telegraph editor processes all copy which clatters into the office over teletype machines from the various news agencies and cables from the paper's own correspondents. The news editor heads the copydesk, which checks and edits all copy going into the paper. There also may be editors of spe-

cial departments: sports, women's page, society, farm page, pictures. On a small paper, of course, some of those many positions may be combined.

General Magazines. Magazines originate a large percentage of the articles and features they carry. Sometimes staff members write the articles; other times the editor assigns articles to freelance writers who have demonstrated their ability to deliver the sort of copy he wants. A great deal of care and research goes into the preparation of any article carried by a major magazine. Therefore, magazines have positions not only for writers but also for research workers, copy editors, and various editorial assistants.

Most large magazines do not hire inexperienced persons for their editorial and business staffs. They recruit persons with experience on newspapers or other magazines. However, beginners often can find first jobs on the smaller, lesser known periodicals. And in recent years a few of the leading publishers have been scouting out promising college graduates for their own training programs.

A small band of freelance writers work for no single magazine but for whichever ones will hire their services. They originate articles on their own or work on assignment from an editor. Established freelance writers can earn upwards of $15,000 a year from magazine reporting alone. But since they are self-employed craftsmen in a highly competitive business, they lead a life of uncertain income and little security. Those uncertainties were driving many talented authors away from magazine writing, the president of the Society of Magazine Writers said in June, 1958. "The writer who gives all his time and energy to the magazine business may be withering away," Lawrence Lader said. "His principal work is now in public relations or advertising, television or motion pictures, the writing of industrial motion pictures or as a consultant to commercial firms."

SYLVIA PORTER, widely syndicated financial columnist, stands at the top in her chosen field. She has the faculty for making the average layman understand what goes on in Wall Street.

Businesspapers. A field often overlooked by young persons considering a career in journalism is the business press —the 2,000 magazines which carry up-to-date information and ideas about virtually every trade, business, and profession in the United States. Yet the business press is a major part of the Fourth Estate. It employs approximately 50,000 persons, 10,000 of them in editorial work, and it carries close to a half-billion dollars worth of advertising a year.

Even young journalists who are aware of businesspapers are inclined to shrug them off as dull and unglamorous. Those who take jobs with businesspapers, however, soon become their most dedicated

CAREERS

advocates. One woman graduate who had expected to find the work dull later wrote her professors that she was discovering real romance—and romance was her own word—in covering the chemical fertilizer industry for a businesspaper.

Directories list 159 categories of businesspapers — from advertising to woodworking. In between are periodicals devoted to automobiles, chemicals, construction, cosmetics, electronic engineering, foods, milling, petroleum and oil, plastics, and restaurants, to name a few of the specialties they deal with.

Because many of the periodicals are highly technical, some have recruited their editorial staffs from the specialties they serve. Thus an engineering magazine, for instance, may hire engineers with a flair for writing and train them as journalists. Others, perhaps the majority, hire journalists, who, after experience on the job, become well acquainted with the fields their magazines cover.

Company Publications. Since World War II, a whole new segment of the press has sprung up—a press paid for and operated by big and little business. The magazines, newspapers and newsletters which comprise it are known by several names: company publications, industrial publications, house organs. But whatever their designation, their common mission is to tell the story of a company to its employees, customers and potential customers in the company's own publication.

Such publications had existed in America for years. Several forces in the 20th century, however, sped their growth and increased their importance. One was the rise of labor unions and the labor press, which sharpened industry's need for a counter-voice. Another was the increasing sense of public relations in the business world, of which company publications are a part. Still another was the growing complexity of industry with its widely dispersed plants and system of subcontracting, which made it hard for workers to see their part in the production process.

Company publications grew especially rapidly during World War II, when tax policies favored their creation and when they were useful for employee orientation and training. In 1940 there were perhaps 2,400 company publications in the U. S.; today there are between 6,500 and 10,000, varying from splotchy mimeographed newsletters to slick, multi-colored magazines with circulations of more than a million.

They are of three broad types. The "internal" goes to the company's own employees. The "external" is distributed outside of the company—to dealers, for instance, or opinion leaders. The "combination" circulates both within and without the company.

A few company publications have staffs of a half dozen or more employees. But typically the staff is just one hard-working editor who, with perhaps secretarial aid, gathers the facts, writes the articles, takes the photographs, and lays out the pages. A substantial number of the editors are women.

Technical Specialties. Many persons profitably combine an interest in some phase of journalism with an interest in some technical specialty. There has been a great demand in recent years for journalists who are well versed in medicine, science, agriculture, engineering, or home economics.

With the backing of the medical profession, three schools of journalism—at the state universities in Illinois, Missouri, and Oklahoma—in 1954 set up special programs in medical journalism. In general, these programs give the student a background in the social sciences and humanities, a heavy concentration of premedical courses, and the regular instruction in journalism. They are intended to help satisfy a perennial demand for med-

ical writers and editors. Constantly there are calls for such persons from publishers of medical journals and textbooks, manufacturers of pharmaceuticals, advertising agencies with medical accounts, large clinics, and public health agencies. One graduate in medical journalism is now news editor of the *Journal of the American Medical Association.* Another is a copywriter for an agency specializing in medical advertising. Still another is an editor of a specialized medical journal.

A young person with a sound background in agriculture and journalism can choose from a wide variety of vocational opportunities, most of them well paying. Editors of farm magazines report a chronic shortage of top-rate staff members. Many daily newspapers hire farm editors to report agricultural developments in their communities. Radio stations have farm program directors to keep farmers informed of market reports, farm news, and weather conditions. Every agricultural college in the United States has an editorial staff to write and edit news releases and special publications, prepare broadcast programs, and produce movies.

Women who have combined home economics with journalism are in demand as advertising copywriters, public relations workers for foods and public utility companies, writers of homemaking programs on radio and television, writers and editors for women's magazines, and reporters for newspapers' women's pages.

Radio and Television. World War II increased the amount of time that radio stations were devoting to news reports and analysis. Now radio-TV news is a firmly established branch of journalism.

On a small station, the newscaster covers some local stories on his own, edits copy from the wire services, prepares his own script, and broadcasts his own programs. Usually, because of limited staff and budget, he is severely restricted in the coverage he can give local events. Some stations affiliated with newspapers, however, make their regular local newsgathering facilities available to the news broadcaster. On a large station or network, the news analyst works from a script prepared for him by his writers.

Ordinarily the best chance for the inexperienced radio-TV newsman is on a small station. Large stations and networks demand established, proved talent.

Preparation. Once few journalists had college degrees. Today a college degree is almost essential. Whether or not one needs a journalism degree to succeed, however, is a more debatable matter. Editors of some of the best newspapers and magazines have liberal arts degrees but no formal education in journalism; they are inclined to look for new employees with similar educational backgrounds. Other employers want liberal arts graduates with some newspaper experience. Still others insist upon journalism graduates.

No less than employers, the faculties of schools of journalism recognize the importance of a liberal education. The journalism graduate, they insist, gets one. Typically, a college student wishing to study journalism spends his first two years in the liberal arts program. Not until his junior year is he permitted to enroll in journalism courses. Even in his last two years, liberal arts courses make up a large proportion of his program.

Although many college graduates find jobs on the communications media without having had formal work in journalism, the school of journalism does offer some distinct advantages to its graduates. For one thing, they have the opportunity to apply their knowledge in political science, sociology, history, and other areas directly to the field they will be working in. For another thing, they get a good grounding in the fundamentals of journalism so they are able to step into positions on graduation without further

CAREERS

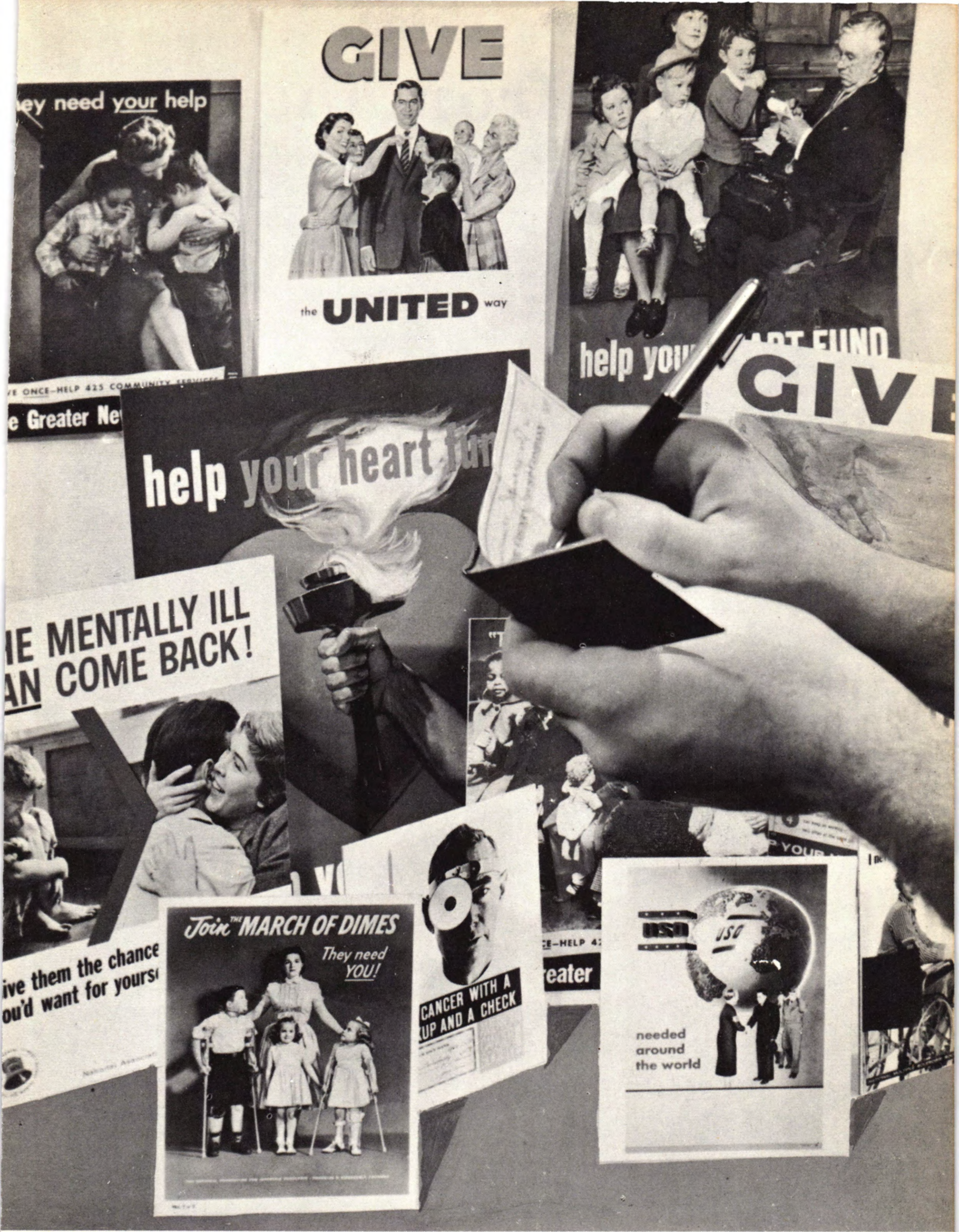
training. In the best schools of journalism, students learn not only the techniques of their craft; they learn the why of those techniques, learn to question them. More than that, they become acquainted with the role of their profession in society and of the responsibilities that role imposes upon them. For still another thing, the journalism graduate may find it easier to locate a job than the non-journalism major. Most schools and departments of journalism have free job placement services for their graduates. Employers tend to look to them when seeking new employees.

WALTER LIPPMANN began his journalistic career on *The New Republic*, which he helped to found. Today he is the nation's most widely respected political commentator, with special knowledge in international affairs.

Forty-five colleges and universities in the United States have journalism programs accredited by the American Council on Education for Journalism, which represents both educational and professional organizations in the field. The A.C.E.J. accredits schools or departments in one or more sequences—that is, groups of related courses intended to prepare students for some journalistic specialty. Typical sequences are news-editorial, advertising, radio-television, home economics journalism, and agricultural journalism. The 45 colleges have a total of 102 accredited sequences. Accreditation is made only after a thorough examination of educational objectives and performance, staff, and facilities.

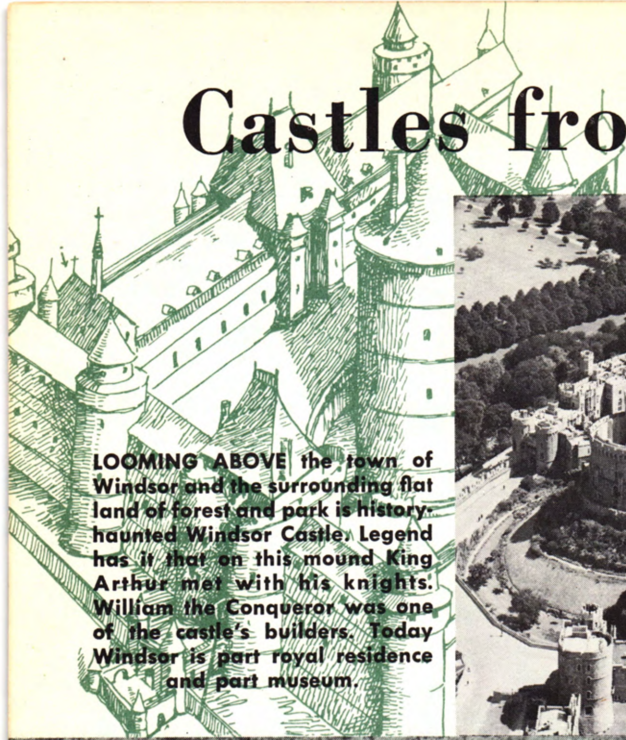
Whether or not one majors in journalism, his college education should be a broad, liberal one. The prospective journalist should know man's cultural heritage; he should have more than a superficial acquaintance with history, philosophy, literature, economics, the sciences. A few students may wish to specialize in some field—agriculture, say, or home economics — along with their journalism. Graduates with such programs are in fairly heavy demand. However, students who so specialize should recognize that in doing so they risk acquiring a one-dimensional education.

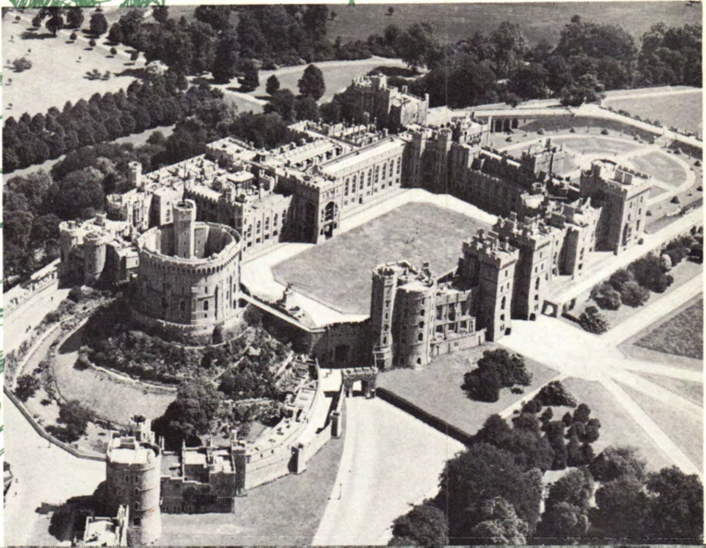
The best college education will not make a journalist of a person lacking certain personal characteristics. The journalist must be able to express himself well. More important, he must have an insatiable inquisitiveness, the habit of asking "why?" and the persistence to keep on asking when the answer is not immediately forthcoming. He must have patience and ingenuity. Ordinarily, he should enjoy meeting people, for much of his work will bring him into contact with them, often in circumstances which give him only a short time to get acquainted.



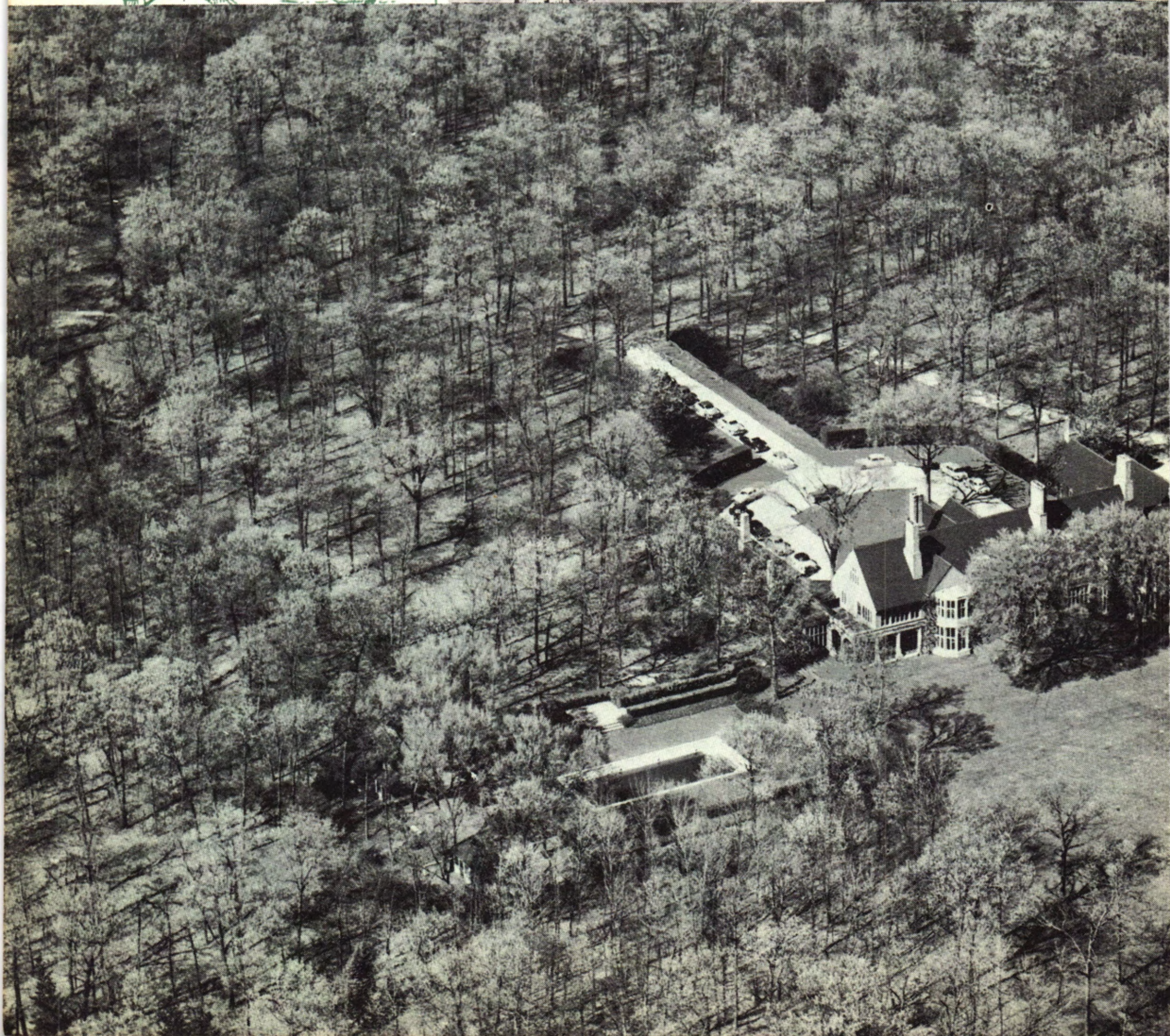
LAST YEAR Americans gave about six and a half billion dollars to charitable causes. To garner these vast funds to help people, organizations and agencies compete like business outfits. The joint campaign reduces the number of demands, but the individual campaign maintains a personal interest in its program.. Americans give generously to both types. They are, in fact, the "givingest" people on earth.

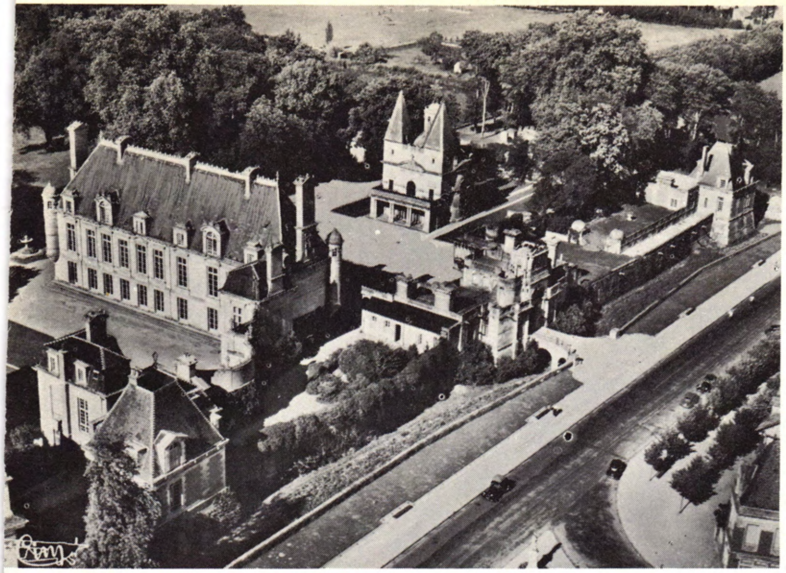
Castles from the Air





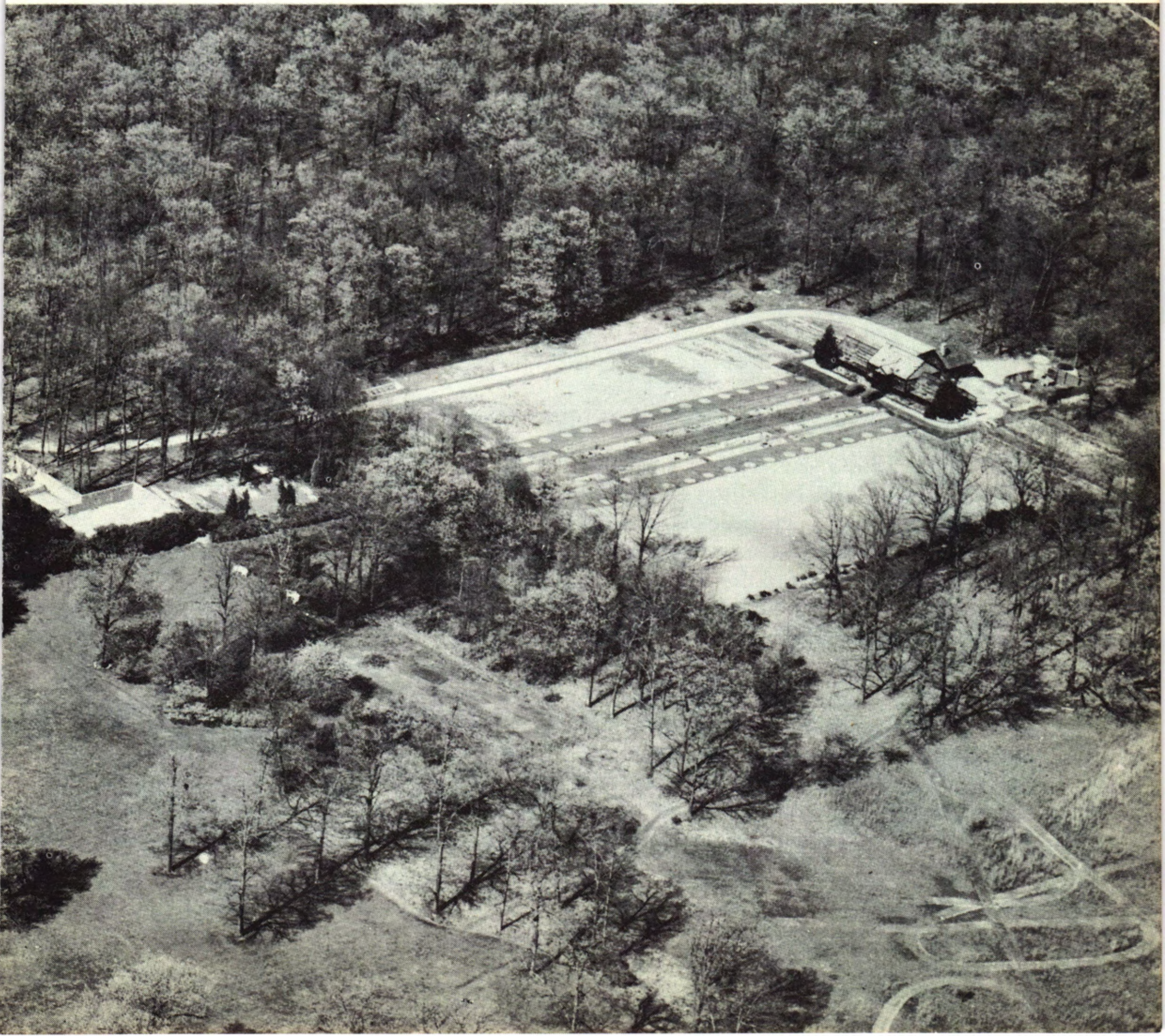
LOOMING ABOVE the town of Windsor and the surrounding flat land of forest and park is history-haunted Windsor Castle. Legend has it that on this mound King Arthur met with his knights. William the Conqueror was one of the castle's builders. Today Windsor is part royal residence and part museum.



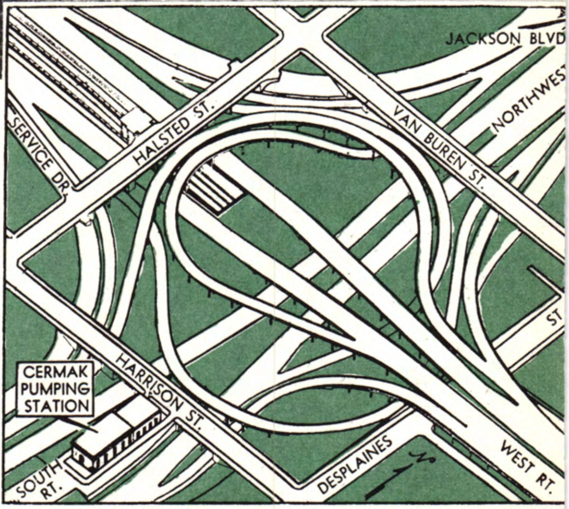


A SUPERB EXAMPLE of French Renaissance architecture of the 16th century is the chateau of Anet, which King Henri II had built for his friend, Diane de Poitiers. The king's chapel is in the middle background.

TANGLEY OAKS, Lake Bluff, Ill., where World Topics Year Book is written and edited, as seen from the air in winter. While not quite a castle, Tangley Oaks is in the best Tudor country house tradition. It is surrounded by landscaped acres, greenhouses, gardens, and ponds.



Crossroads
. . . then and now



IN THE 1890's the nearest thing to traffic trouble might be caused by a couple of horse-drawn wagonloads of hay moving in opposite directions down a village street. In contrast to the sleepy scene above, showing a section of the Philadelphia-Lancaster turnpike, is the drawing at the right, the pattern for a new "traffic interchange" or crossroads in Chicago. It will be between Halsted and Desplaines Streets, where the proposed northwest and south highways intersect the Congress Expressway. Its cost: from $25 to $30 million. This complicated maze will be one of the world's busiest intersections. Preliminary estimates by city engineers predict that about 170,000 vehicles will use the interchange every 24 hours. Strange to say, today's drivers can thread their way through such labyrinths as this with sureness and speed.

CONGRESS

CONGRESS — 1958

Mixed Opinions. The second session of the 85th Congress adjourned August 24. Democrats dominated both houses, but were often joined by liberal Republicans, while Southern Democrats were often found voting with the conservative Republicans. As usual, a great deal of important legislation was crowded into the last days and hours. Also, as usual, the record was viewed variously: some considered it excellent, and others declared this Congress had failed to act on many important issues of the day. Most of the right wing criticism had to do with the failure of Congress to pass legislation curbing the Supreme Court, to stop inflation, to define the powers of the states in relation to the Federal Government, or to deal with labor racketeering. Liberals were inclined to view the record as a little above the average in accomplishment.

Of the 1,102 measures sent to the President for his signature, he signed 1,063 and vetoed 39. Of these, 619 were public and 444 private bills.

Taxes. General income tax reduction was defeated in the Senate and never reached the House for a vote. Although most economists had agreed that a tax-cut would be a quick and sure anti-recession device, they did not agree as to where the cuts should be made. There were, however, some changes in the tax law as it affects small business. Excise taxes were revamped, and in some cases lowered.

Foreign Aid. One of the most controversial bills to get through both houses was the foreign aid bill, which was passed on the final night of the session. As passed, it called for $3,298,092,500—about $752 million less than the President had requested. As in previous years, the bulk of foreign aid goes for military assistance and defense support. About $171 million was earmarked for technical co-operation and about $106 million for refugee and U.N. projects. The President was allowed a contingency fund of $155 million.

Budget. President Eisenhower's State-of-the-Union message in January called for a record peacetime budget of $74 billion, including $44 billion for defense. Actually, Government spending was exceeding the estimates before the end of the year.

Social Security. Late in the session the President signed into law a measure increasing Social Security benefits an average of 7 per cent, the change to be effective in January, 1959. Minimum pensions now start at $33 instead of $30, and maximum pensions for the single person are up from $108.50 to $116. Employees and employers will foot the bill through an increase in the Social Security tax rate, which is advanced to 2½ per cent. By 1960 the tax rate for each will be 3 per cent. For self-employed persons the tax is of course steeper.

The number of persons now receiving Social Security benefits has sharply increased. About 12 million Americans are

EDWARD S. MUSKIE, new Democratic senator from Maine, long a stronghold of Republicanism. In Washington, he will share senatorial honors with Mrs. Margaret Chase Smith.

now on the rolls, and this number will have increased to about 15.5 million by 1965. In 1958 Social Security payouts were for the first time greater than the tax revenues. The deficit trend will be reversed by 1960, when income is expected to top outlay by about $600 million.

Other money bills involved an increase in the pay of men in the armed services and that of government employees. Postal rates and the pay of postal workers were increased. A bill to provide ex-Presidents with a $25,000 yearly pension, and their widows with $10,000 a year, became law.

Labor. The Kennedy-Ives bill on labor reform was defeated. Although sponsored by two liberal Senators, this bill contained riders that aroused opposition from many quarters. Legislation aimed to curb labor racketeering and also to require management to file reports of its financial activities in relation to labor will undoubtedly be taken up early in the 1959 session.

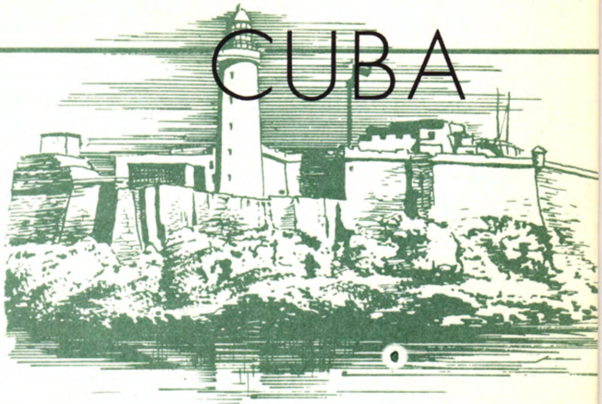
Railroads. A compromise bill approved by both houses was signed by the President. It aids the railroads by making it easier for them to obtain loans, raise rates, and abandon unprofitable lines. It authorized the Interstate Commerce Commission to guarantee up to $500 million in loans for equipment, improvements, and maintenance.

Unemployment Benefits. A temporary loan program for helping states meet the needs of the jobless who had exhausted their state unemployment benefits became law.

Education. The bill designed to aid education was bitterly fought by those Congressmen who believe that any and all Federal aid carries with it some measure of control. The new law contains many sections, one of which provides for a loan program involving the sum of $295 million, through a four-year period, for students who might not otherwise be able to go to college. It also provides $300 million over a four-year period in matching grants to states for science equipment and administration; other sums are allowed for fellowships to help teachers improve their abilities; and $60 million in matching grants goes to states for guidance counseling and testing; other grants are for research in television teaching and for vocational education in skills needed for defense.

Alaska Admitted. A bill to admit Alaska as the 49th state was passed by the House of Representatives in May, then sent to the Senate for approval. The Senate vote was 60-20, and the bill was signed by the President on July 1.

Among other important pieces of legislation: the creation of a new space agency, Pentagon re-organization, the continuation of the reciprocal trade act for another four years, a new accounting method for the budget, new controls for air traffic, an expanded highway program and a measure to check billboards on the new system, a humane slaughtering law.



Strong-Arm Tactics. Violence and corruption have marked Cuba's government in the half dozen years of the Batista regime. Gen. Fulgencio Batista had been a leading figure in Cuban politics since the 1930's. In 1939, he was elected president, and after his term expired lived in exile in the United States. Back on the island in 1948, he began a new and successful drive for power. In 1952, Cuba was making progress toward orderly government. In the national elections of that year, when he was running a poor third in the race for president, he seized power by a military coup. The army and a very large police force have kept him in office. Police brutality has grown during the Batista regime. Constitutional liberties disappeared. Persons who dared voice a protest would find themselves removed from circulation. The jails are full of political prisoners and many prominent Cuban liberals are now living in exile. No less than seven organizations of Cubans have been fighting for Batista's downfall or withdrawal from office. Among them are student and labor groups, and an organization of young Catholics.

The Election. Batista had declared on several occasions that he would abide by the results of an election. In fact, a rigged election was held in 1954. On November 1, 1958, another election was held with Batista's hand-picked candidates running for office. The various rebel groups boycotted the election, as a form of protest. The rebel groups are convinced that a political solution of Cuba's troubles is no longer possible. In the recent polling, Batista's candidate, Andres Rivero Aguero, was overwhelmingly elected—but it is the dictator who is still at the helm.

On election day there were violent clashes between the rebels and the Batista forces, and these continued in the weeks that followed. Batista sent a part of his army into eastern Cuba to make an all-out attack. The resulting engagements seem to have been the largest of the civil war. It was reported that several hundred rebels were killed.

Rich and Poor. Cuba has always been a land of extremes of wealth and poverty, and this situation continues, with the rich becoming richer as a result of open official corruption. The government gets a cut (in addition to taxes) from every business, every street vendor. Recently its revenues have been increased enormously by the multi-million dollar gambling business that has grown up in Havana.

A massive public works program was set up to create jobs for the sugar workers during the slack season, and this has raised the public debt to a very high level. The padding of construction costs for new highways was such that an outraged citizen declared, "For what our roads cost us, we could have paved them with gold." One prominent family was said to have the "smuggling concession" for the island. Army planes would fly goods into Havana, where they were unloaded at a military airport, then sold in the city's shops.

Persons high in government and army circles flaunt their wealth. They drive the sportiest cars, patronize the most expensive gambling casinos. Batista himself is said to have amassed a fortune of many millions, which he has invested outside

Cuba. And, in contrast, near the Havana city dump, people can be seen living 15 to a room, in squalor and despair.

Resistance Movement. The most determined of the rebel movements centers around Fidel Castro, who, with the help of his brother Raul and a small force, has held the eastern end of the island since January, 1956. They are helped financially by Cubans living in exile and by non-Cuban lovers of liberty. From time to time guns, food, or money are smuggled into their mountain hideout in the Sierra Maestra Mountains. Collaborators from the mainland have been able to send small boatloads of supplies and munitions across from Florida. The fight has been long and hard but the movement has constantly drawn in new recruits.

Why They Fight. The rebels are fighting, first of all, for the ouster of Batista and the restoration of democratic government. They want to see the return of exiled leaders, including a couple of lib-

CUBAN REBELS in one of their hideouts in Oriente province count a shipment of money that has come to them from Santiago. Rebel leader Fidel Castro used the money for supplies for his men and some of it went to poverty-stricken farmers of the region under his control.

eral ex-presidents, and the freeing of political prisoners. They want improved schools and communications; the breaking up of huge estates, with compensation for any expropriated lands; they want more industrialization and a more varied, less "sugar-centered" economy.

The Rebel Leaders. Fidel Castro was born on his parents' estate in 1924—not far from his present headquarters. His father had emigrated from Spain and had become a wealthy sugar planter. His mother's family was landed gentry. Fidel was educated in Jesuit schools and at the University of Havana, where his studies were interrupted by his participation in an unsuccessful uprising against the Trujillo dictatorship in the Dominican Republic. Returning to the university, he became president of the students' federation. After receiving a law degree, he practiced in Havana, often accepting cases of persons too poor to pay a fee. He became a candidate for parliament, but about this time Batista suspended the constitution and parliamentary government and began to rule by decree.

In 1953, Fidel and Raul organized an attack on the military barracks in Santiago, a city of 200,000 and the capital of Oriente province. They hoped to provoke a general uprising in Oriente, the largest and richest of Cuba's six provinces. The attempt failed, and the brothers were convicted and sentenced to a 15-year term in prison. In 1955 they were released as a part of a general political amnesty. They went into exile and spent some time in the United States and Mexico, where they organized anti-Batista groups.

Exiles' Return. Returning secretly by small boat, the Castros were able to land on the coast of eastern Cuba in February, 1956. They were accompanied by some 80 rebels. The band was attacked by government forces and most of its members were wiped out. Scarcely a dozen of the original group are now alive. The brothers and their followers fled to the interior and established a base in the Sierra Maestra mountain range. A sort of guerrilla jungle war has been kept up for nearly three years.

Recent Happenings. In April, 1958, Castro called for a general strike. It didn't come off. Many who did respond to the strike call were killed in cold blood not only by soldiers but by government workers, who had been armed by Batista's orders.

DR. MANUEL URRUTIA, anti-Batista leader, lived in exile until Castro called him to serve as president, early in 1959.

Raul now commands his own army in a neighboring province. Rebel units have established pockets of resistance in several parts of the island.

No one knows how many the rebels have in their little army, but there are certainly several thousand men and a few women. They are poorly equipped and undergo great hardships. They have no uniforms, get no pay. Batista has tanks, trucks, ammunition, and artillery, while most of the rebels must furnish their own guns, and forage for some of their food.

The elder brother, Fidel, fights in the front line with his men. He is a dedicated patriot, with a magnetic personality and remarkable qualities of leadership. He is a devout Roman Catholic.

Violent rebel tactics late in 1958 included hi-jacking three Cuban commercial planes. One plane crashed in coastal waters with heavy loss of life. The others landed safely in rebel territory, and the passengers were released in the custody of the Red Cross.

Help from Abroad. Batista's strength comes from the army, government employees, and the secret police. Big industrialists and landowners also support him. His army is said to number about 22,000 men, well equipped and quartered in barracks near Havana. A revolt in the navy was put down in 1957. Help has come from the outside. Plane-loads of arms have been flown in from the Dominican Republic, and other weapons have come from Nicaragua. Great Britain sold military planes to Batista in the summer of 1958. Until that year, the United States had been selling him small military equipment. Throughout his rule, Batista has also received many millions in financial aid from the United States under the mutual security program.

Civil war does not make for a prosperous economy. While economic life in Cuba is by no means at a standstill, the sporadic strikes and boycotts have made themselves felt. Industrial production is lagging. Communication lines have been cut and crops neglected. United States companies have invested billions in Cuba —in sugar, rice, oil, coffee, and cattle raising. Foreign companies now hesitate to invest in island industry. Property damage to United States concerns doing business in Cuba has been considerable. The tourist trade has fallen off and the luxury hotels are often almost deserted. People stay off the streets at night.

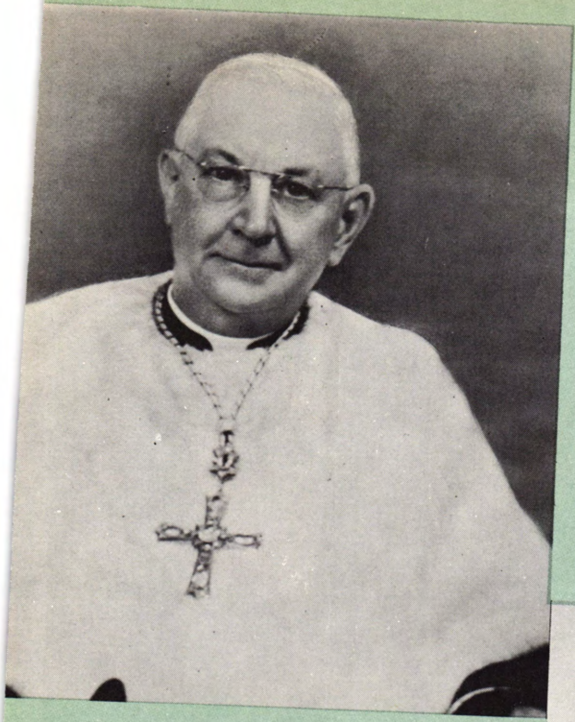
Toward the end of the year, the rebel movement gained great momentum, as more and more Cubans, formerly neutral, rallied to the cause. The fighting increased in intensity in eastern and central Cuba, and the rebels infiltrated Havana. On Dec. 30, two of Batista's sons flew to safety in the United States. The following day, the dictator, his puppet president, and other leading figures of the regime sought refuge in the Dominican Republic.

Fifty years ago: In 1908, the British liner *Mauretania* held the record for Atlantic crossings in both directions — westward, 4 days, 10 hours, 51 minutes; eastward, 4 days, 13 hours, 41 minutes.

Twenty-five years ago: In 1933, the great system of river-taming dams, the Tennessee Valley Authority, was completed. Bringing cheap electric power to millions, this project served as a model for similar enterprises in other countries, making TVA known round the world.

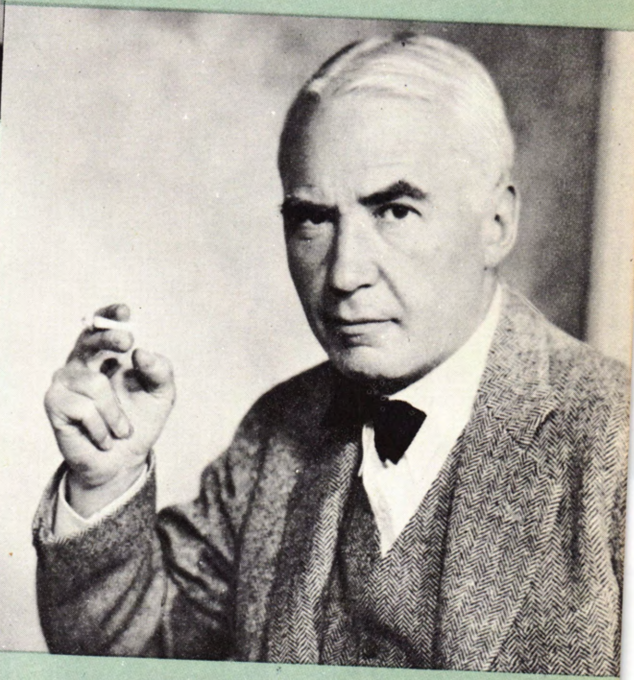
Three hundred years ago: Elizabeth I of England began her 45-year reign.

Deaths



SAMUEL CARDINAL STRITCH was for six years archbishop of Chicago, the largest Catholic archdiocese in the United States. In March, 1958, he became the first American cardinal ever appointed to the Roman Curia. He fell ill soon after taking up his duties at the Vatican and died in June, as the result of a blood clot and stroke.

ELMER DAVIS, famous newspaper man and radio commentator, died in Washington, D.C. in May. During the war he was head of the Office of War Information. His latest book, a plea for a more politically alert citizenry, was titled *But We Were Born Free*. Mr. Davis was admired for his sharp insight into public affairs and for the honesty of his opinions.



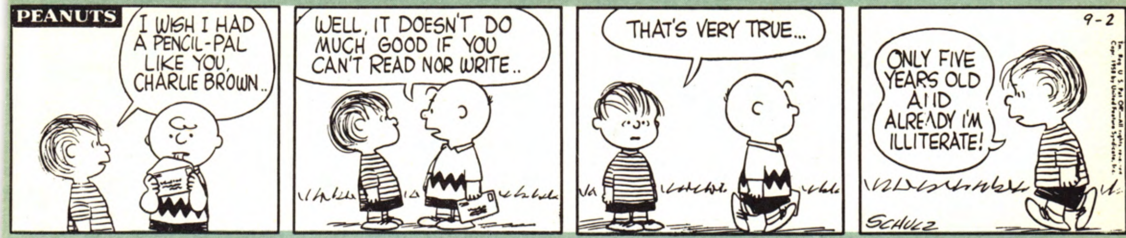
DOROTHY CANFIELD FISHER, 79, died in November at her home in Vermont. She was the author of many fine American novels, and also wrote in the field of education. For 25 years she was a Book of the Month Club judge.

MAJ. GEN. CLAIRE CHENNAULT, war-time commander of the Flying Tigers, died of lung cancer in New Orleans in July. Retired in 1945 after strongly criticizing U. S. policy, he organized the Nationalist Chinese Civil Air Transport line.

MARY ROBERTS RINEHART, 82, author of popular novels and murder mysteries, died in New York in September. Her 50 books, produced in a writing career covering 60 years, sold an estimated 10 million copies.

BURTON HOLMES, 88, died in Hollywood in July. Known as the originator of the illustrated lecture, or travelogue, which in recent years has developed into the travel movie with commentary, Mr. Holmes opened up new horizons for millions of Americans.

EDUCATION



Federal Aid. Thomas Jefferson wrote to John Adams in 1813, suggesting a system of scholarships to select the best students from elementary school up to the university. The aim was to foster "worth and genius" so that it be "completely prepared for defeating competition of wealth and birth for public trusts." Since that time, hundreds of thousands of students have gone to college on scholarships provided by individuals, foundations, and business firms. In the United States and Canada almost any good student who wants to go to college can manage to do so, no matter how lacking in funds he may be.

Among those interested in higher education, there have been varying expressions of opinion as to whether the Federal Government should become one of the scholarship-granting agencies. This debate is part of a larger controversy over Federal aid to education, which proponents regard as an easy way to provide equally good education for all, and which opponents fear may lead to regimentation of education and to less education at higher cost.

In 1958 the sponsors of Federal aid won a small victory when the Congress of the United States passed a measure providing for low-interest loans to outstanding high school graduates who might not otherwise go to college.

The appropriation for student loans allows $47.5 million for the first year and rises to $90 million during the fourth year. The plan is to be administered by the U. S. Commissioner of Education. In a given year, a student may borrow up to $1,000 at 3 per cent interest; the maximum sum to any one student is $5,000. Borrowers who later teach in the public schools are to receive preferred treatment by way of "forgiveness" of their loans up to 50 per cent of the total.

Other sections of this complex measure provide money for educational research projects, for strengthening the teaching of sciences and languages, and to aid guidance and counseling programs. Altogether almost a billion dollars will be spent in various ways over a four-year period—but less than 10 per cent of this goes into the student loan plan.

Schools Criticized. The new law was one result of the barrage of criticism recently aimed at American schools. Criticism has come from many sources. It was directed toward all levels of learning, from elementary school to university. The critics were parents, employers of labor, journalists, scientists, and others. Teachers and school administrators joined in the chorus. Everybody had an opinion (for hadn't everybody been through the mill?)—and was ready to express it. Hearing the clamor and reading the articles that appeared in print, anyone unfamiliar with American ways might have thought there was nothing worth saving in the school system.

Teachers' salaries were too low—or too

 EDUCATION

high. A related question was also discussed: Does good teaching automatically result from paying high salaries? Among other miscellaneous charges: too little attention given to educational values; foreign languages, science, and mathematics were poorly taught; so-called "progressive" education was "soft" education (a charge that the followers of John Dewey were quick to assail); the colleges were full of young people who shouldn't be there, and vast numbers deserving higher education were not there; public school classrooms were overcrowded, there were too many two-shift schools; some schools were shacks or firetraps; gifted children were given less attention than dull ones; pupils were overfed and underworked; promotion and graduation were automatic, and not based on achievement.

As an example of harsh judgment we quote Nobel Prizewinner William Faulkner: "As I see it, schools are becoming more and more just baby-sitting organizations to keep the kids out of their parents' hair. Children today are being bribed to attend college with such inducements as professional football teams and striptease cheerleaders."

Local vs. Central Control. Vice-Admiral Hyman G. Rickover, father of the atomic submarine, in a speech delivered early in 1958, objected to the control of schools by laymen. He said: "The greatest single obstacle to a renovation of our education comes from the fact that control, financing, and direction of education is, in the United States, in the hands of many thousands of local school boards, whose members seldom qualify as educational experts. . . . In no other Western country are educational institutions so precariously placed financially, so dependent on local politicians, on the whim of small communities where few have ever had a higher education. Half our colleges are continuously threatened with bankruptcy. The future looks bleak unless in some way Federal assistance can be made acceptable and some sort of national standard can be established to which diploma and degree-giving institutions must conform."

Many others are just as firmly convinced that American schools must continue to be locally controlled by nonprofessionals, if they are to retain their independence. These persons do not want a small group in Washington to set the standards.

Goals and Values. Most critics, however, agreed with Admiral Rickover's basic contention that the purpose of education is the training of the intellect. He and others have criticized the curriculum and the low value set on the highbrow, the coddling attitude that encouraged students to throw their energies into hobbies, recreation, and "life adjustment" courses to the neglect of solid and difficult subject matter.

Conant's Findings. Rickover and Faulkner are outsiders, as far as the educational system is concerned. The opinions of professionals naturally carry more weight. In 1957, James B. Conant, president emeritus of Harvard University, undertook to make a two-year study of the American high school, under the sponsorship of the Carnegie Corporation. He had reached some tentative conclusions in 1958, after interviewing 1,500 high school teachers in 13 states.

Dr. Conant believes that wherever practicable, small high schools should be consolidated. The large "comprehensive" institution has better facilities and can more easily group students into different classes according to academic ability. All students, regardless of their vocational goals, should receive a general education that includes four years of English, four years of history or related social studies, two years of mathematics, a general science or biology course, one year of art

or music, and physical education. Academically-talented students should be identified in the eighth grade, and persuaded, when they enter high school, to take a tough program. This would include four years of English, four of history and social studies, four of mathematics, three of science, and four in a foreign language.

While Dr. Conant believes in some grouping according to ability, he does not advocate fixed programs or "tracks" that are definitely labeled "academic" or "college preparatory." There should be enough flexibility to allow for moving from one level to another. The National Association of Secondary School Principals goes along with most of the points stressed by Dr. Conant.

Critical Yet Constructive. Professional opinion is also voiced in the report of the Rockefeller Brothers Fund panel on the state of American schools. Chairman of this distinguished group of educators was Dr. John William Gardner, head of the Carnegie Corporation, which is largely concerned with education. The report pointed out defects and offered suggestions for improving standards and equalizing opportunities. The need for Federal aid was stressed. Particular concern was expressed that the educational system was not keeping up with the growth of the population or the changing demands of

EARLY TRAINING in foreign languages is today advocated by many educators. This small class enjoys its lesson in elementary German.

society. The report is published by Doubleday in pamphlet form under the title, *The Pursuit of Excellence.*

Other suggestions for improving the quality of education came from teacher groups. One such analysis placed educational needs in this order of priority: "Emphasis on higher education, especially at the graduate level; . . . longer-range emphasis on the recruitment of teachers; and for the long range, prompt and enduring response of the public in providing adequate support for education." This group thought that expenditures on education should be doubled within the next decade.

Assessing the Criticism. General criticism of American schools is difficult and also dangerous for the simple reason that the United States has no uniform system: there are only nation-wide trends. In many states, each school district is a fairly independent unit, controlled by its locally elected board, which is responsible to the citizens. Schools not five miles apart may be very different, dependent as they are on the board, the pressures of parents, and the size of their budgets. School revenues may be ten times as much per pupil in a prosperous suburb as in a remote rural community in another state. Most of the pressure on Congress for Federal aid has been based on the desire to correct these inequalities.

But, admittedly, much of the criticism is justified. In many areas, teachers' salaries are too low to attract the best qualified men and women. The country is in need of additional classrooms, although the shortage is now less acute than formerly. It is also generally agreed that the curriculums might well be stiffened.

Comparisons. Perhaps the greatest shock to the public came from the comparisons of the American system with those of England, France, and Soviet Russia. Such comparisons showed the average American child to be about two years behind his European counterpart in the mastery of subject matter. Particularly astonishing was the amount of knowledge packed away in the craniums of the Russian, British, and French high school students. (See article on Soviet Education.)

The criticisms and comparisons were healthy and useful. They stimulated wide interest and the will to promote constructive change. As a matter of fact, some of the criticism is already obsolete. For instance, a new emphasis on science teaching began some years ago, and has been vastly helped by clubs, seminars, competitions, and scholarships, as well as by new tools and techniques.

Private Loan Plans. The high cost of higher education has created a budget crisis in many families where there are several children to educate. Since 1940 the cost of tuition has in many cases doubled. At Harvard it has trebled. The trend continues upward, and at a faster rate than the general rise in family income. The cost of books, living expenses, travel, and incidentals has zoomed to high levels. At present rates, the total cost for four years at college at a state university is estimated at an average of $4,500; at a private college, from $6,500 to $8,500.

There are jobs at which the ambitious boy or girl may work to help pay for the years at college, though not as many as in the early 1950's. Some colleges and universities have student loan programs, but about 63 per cent are still without such programs. Some parents may prefer their children to be burdened with ignorance rather than debt. Students, too, may hesitate, for the repayment of the debt may cause the postponement of marriage, or force the graduate to take a high-paying job rather than one of his choice.

Yale University has a new student loan system, with an interest rate of 2 per cent if the loan is repaid within the first five

years after graduation; 6 per cent if after that time. Yale is also experimenting with a "remission" policy which excuses teachers and clergymen from repayment, to stimulate students to enter those professions. Private agencies as well as colleges are extending generous credit terms to serious students.

Increased Enrollments. Whatever the financial difficulties, more and more young people are entering colleges, according to Lawrence G. Derthick, Commissioner of Education. Enrollments in 1957 were 45 per cent above those in the fall of 1951. In the next ten years, the number of those seeking to enter the nation's colleges is expected to double. This is partly due to the high birth rate during the 1940's. Latest figures give the current number of college students as close to three and a half million, two-thirds men. One out of every four students drops out after the first year, usually indicating one of two things—the need for better entrance screening or the student's need for further financial assistance.

The Office of Education has issued a pamphlet entitled, *Financial Aid for College Students* (Undergraduate) at $1. From a recent survey, it is estimated that nearly a quarter of a million students are being aided by scholarships every year. Competition for the National Merit Scholarship is offered to the top 5 per cent of each high school graduating class.

Small Colleges. While competition to

ADMITTEDLY SUPERIOR are these children in a class for gifted children in Pittsburgh, Pa. Not all cities provide special classes for the highly talented children, but the trend is growing rapidly.

obtain admission to the larger and better endowed colleges continues, many of the smaller institutions are in a position to admit more students than they now have. One of the benefits that comes from attendance at a small college is that the smaller classes and the atmosphere of informality allow closer contact with teachers.

To promote public interest, the Council for the Advancement of Small Colleges was recently formed, bringing together representatives of 65 colleges with an average enrollment of 400. The organization will raise funds to improve teachers' salaries and expand libraries. Within a few years they hope to receive accreditation from one of the six regional accreditation associations. At present they have only state accreditation. With regional accreditation they can qualify for gifts and subsidies from agencies such as the Ford Foundation, which recently gave away some $210,000,000 to 600 American colleges.

The Council will ask each college included to raise an extra $5,000 a year for the next three years; will ask 65 foundations and 65 large corporations for the same amount for three years. The money thus raised will be distributed among the participating colleges to improve standards and especially to increase salaries which at present average only $3,500, in contrast to a national college teaching average of $5,400. The colleges included are liberal arts and pre-professional colleges, scattered over 32 states. Some are undenominational, others under Roman Catholic and Protestant auspices. The Council has established headquarters at 726 Jackson Place, N.W., Washington, D.C. and has published a directory which describes the colleges, their costs, requirements, and courses of study.

Student Exchanges. An ever-growing number of United States students are studying in foreign countries, and the flow of foreign students to American campuses is one of the great educational facts of this decade. A record number of 43,391 students came to the United States in 1958, according to the Institute for International Education. These students, from 145 countries and territories, were enrolled in some 1,800 American institutions. About 23 per cent were studying engineering. Next to engineering, the greatest number was in the humanities. African students tended more to the social sciences. Those from Latin America and the Mideast favored engineering; Canadians and Europeans, the humanities. The Soviet Union is now included in the student-exchange system.

Teacher Trading. In line with the student exchange movement is the U. S. State Department's program of trading elementary and high school teachers with those of certain foreign countries. More than 600 teachers from 43 countries, including the United States, will take part in the 1958-59 program. Since its start in 1945, nearly 5,000 teachers have participated. In 1956, 100 American teachers traded jobs with 100 British teachers. After a year in London, American teachers reported on some major differences between the two systems. One of them was the English custom of separating children at an early age according to basic abilities, to speed the progress of the more capable ones.

Studying Communism. George S. Counts, professor emeritus of Columbia University, has long maintained that the study of Communism is a major responsibility of the American secondary school. Social studies teachers generally support this view. The American Legion has reversed its former policy and now it, too, has gone on record as favoring such study. However, the high school teacher who prepares to lecture on the subject should have the support of his school board and parents' group, so that *information about*

DAWN BRIGADE. "Sunrise Semester," conducted by Dr. Floyd Zulli for New York University, demonstrated that thousands of people were up and eager to learn about the classics of literature at 6:30 a.m. Many teachers are now being trained in the special techniques required by the medium of television.

is not confused with *advocacy of* the communist system. In this connection, figures on the study of Russian are relevant. In the 1957-58 school year, 180 colleges offered courses in Russian, with about 5,000 students participating. This figure was expected to double in 1958-59. Many high schools offer Russian.

Delinquents. Early in 1958, New York City's Board of Education was faced with the problem of increasing numbers of difficult and delinquent children in the public schools. Outbreaks of violence in classrooms, corridors, and playgrounds were frequent. The trouble-makers were disrupting morale, lowering the quality of education for the normal and well-behaved children. This was no new problem, nor was it peculiar to New York City.

Delinquency was most acute in the schools of slum or border-line areas, where race conflicts, poverty, and bad housing prevailed. That homes were inadequate, that these children had been rejected by delinquent parents — these factors were recognized by the school authorities, but they could not remake society. They could only provide an emergency measure. This took the form of providing separate schools for those who showed a flagrant contempt for law and authority. Six such schools were opened, and unruly youngsters between the ages of 9 and 17 were assigned to them. The "600" schools, as they are called, have specially trained staffs and flexible curriculums, adjusted to each individual's capacity. No one pretends that this is a perfect solution. It means one more rejection (from the classroom group) for those who have already been rejected and neglected. But in these special schools the children have a better than even chance of finding an understanding teacher or counselor to help them get on the right track. Some of them will be returned to regular schools. Others will go on to vocational schools and jobs. Still others, a minority, will be sent to correctional institutions.

Televised Teaching. Over the past five years the Federal Communications Com-

mission has set aside numerous TV channels for educational purposes. The U. S. Office of Education has given strong support to television, both for direct teaching and as an enrichment device. Formerly this medium was not considered suitable for direct teaching at the elementary level. Now, TV science and language instruction is given in the lower grades, on both closed and open circuits, with excellent results. It is helping meet the teacher shortage. At the Evanston, Ill., high school, television is used for courses in typewriting and speech. The demonstration-lecture proves a valuable supplementary tool.

At the upper levels also, TV's great potentialities are being exploited. In 1958, the Federal Office of Education reported that 400 college courses were being taught by television. The off-campus students (for credit) now form a very large group. The Chicago Board of Education has made it possible for students to carry on a formal education by television for two years beyond high school, enabling them to enter accredited colleges as juniors. Credits are given on the basis of examinations and other written work.

New York State has embarked on a major venture into education by television with an appropriation of $600,000. New York University, a private institution, trailblazed with its TV "Sunrise Semester," a course on modern literature given in 1957-58 at 6:30 a.m. A rating survey showed that during the first semester it had about 150,000 viewers. During 1958-59 at N. Y. U., college credits were given for TV courses in literature, history, and political science. In the South, a regional plan for TV teaching that includes more than 300 colleges in 16 states has been submitted to the FCC for approval. State-owned Negro institutions for higher education are included.

Tools and Techniques. Another useful project, this time on film, has been sponsored by the Ford Foundation: a complete one-year course in high school physics has been put on film—160,000 feet of it—in color, and with a sound track. This is designed for schools that lack qualified physics teachers.

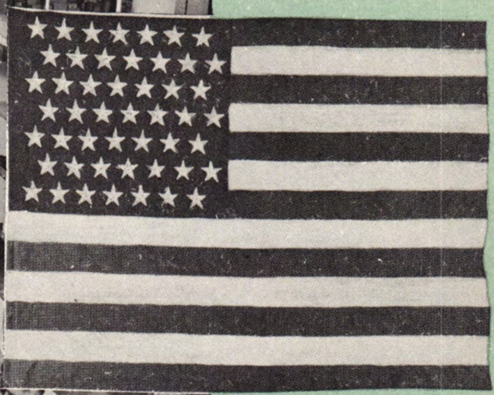
In addition to the use of such tools as TV, films, and tape recordings, new methods for making teaching more effective are being tried out. Classroom assistants are being used to help teachers with clerical and housekeeping duties, and with the supervision of pupils in and out of the classroom. The teachers are thus given more time for professional duties. There is evidence that the use of classroom assistants permits a moderate increase in the size of classes. Another result was that pupils did better in achievement tests and examinations.

More Flexibility. Some school systems have experimented with a plan for making the boundaries in the first three grades very flexible, promoting those who are ready for fourth grade work perhaps a full year early. This scheme gives the teachers more time to discover and work with those who have trouble with reading, arithmetic, or spelling, thus avoiding the larger problems which otherwise appear later.

With the aid of a large grant from the Ford Foundation, the National Association of Secondary School Principals is conducting a number of projects that involve new ways of grouping and presenting subject matter. Some subjects which involve exposition are taught in classes of 90 to 225. Other subjects, which require recitation and teacher-class criticism, are taught in classes of eight to 12 pupils.

It may be some years before the new ideas and techniques are generally applied, but there is little doubt that the year 1958 will have marked the beginnings of important changes in American education.

Emblem of our Nation



THE NEWLY-DESIGNED FLAG with its staggered seven rows of seven stars each, and, left, a workroom of Annin & Co., one of the country's largest flag-makers.

Flag-makers and public awaited the selection of a new U. S. flag, with 49 stars denoting the 49 states, including the latest addition, Alaska. Flag manufacturers are in little danger of being left with quantities of unsold 48-star flags on hand. Before the new flag becomes official, on July 4, 1959, tens of thousands of flags now in use will be worn out.

The government is the heaviest user of flags. Soldiers' graves are decorated with flags. Every Federal building in the land displays the flag every business day. Other types of public and private business buildings display the flag. About 80,000 school houses fly the flag on school days. Nearly every family owns one. Flags that are exposed most of the time have to be replaced two or three times a year.

While most U. S. citizens will want to purchase the new flag (signalling the first change since two stars were added for Arizona and New Mexico in 1912), it is legal and proper to display the older models as long as the flag is in good condition and properly hung. Some people will not want to invest in a new flag if the admission of Hawaii to the Union seems imminent in 1959.

THE MOISEYEV BALLET toured the United States in 1958, and its reception matched in enthusiasm that given to Pianist Van Cliburn in Moscow. This superb dance group is full of a genuine joy in performing, with an almost superhuman vitality. In their final New York performance, they danced a Virginia Reel.

ENTERTAINMENT

ALEC GUINNESS, below, gets the good news of his winning of an Oscar as best actor of the year for "The Bridge on the River Kwai." Later in the year he won another resounding success in "The Horse's Mouth."

CHARGES OF CORRUPTION and collusion were one reason for the swift drop in the popularity of the TV quiz show, with its built-up suspense and fabulous give-aways. Perhaps the public just grew tired of the formula—the performers—people with a gift of total recall. Above are M. C. Jack Barry, with contestants Robert Leicester and Elfrida von Nardroff, featured on NBC's now defunct "21."

EDDIE HODGES was a hit in Meredith Willson's musical comedy "The Music Man."

TOP FILM ACTORS happily clutching their Oscars are Miyoshi Umeki, voted best supporting actress for her work in "Sayonara"; Red Buttons, best supporting actor in the same film; Joanne Woodward, best actress for "The Three Faces of Eve"; and Jean Simmons, who accepted the award for absent Alec Guinness.

DODY GOODMAN, above, was one of 1958's popular TV comediennes. Naturalness and simplicity are what her admirers like in Dody, who is here shown reading her fan mail.

MARCEL MARCEAU, who toured the United States in 1958, has been proclaimed the greatest living pantomimist. He has revived the ancient art of pantomime, a silent art that can tell a story, can people a stage, by the subtlest of physical movements. In "The Public Garden" this French artist creates 15 characters one after the other. Marceau's performance looks easy but is physically exhausting.

Fact Hunting is Family Fun

by EVERETTE E. SENTMAN
Editor in Chief
Tangley Oaks Educational Center

My neighbor says he needs another book in the house like he needs a hole in his hedge, and I can keep my advice about family fact-hunting to myself. As an encyclopedia editor, schooled to look at both sides of an issue, I must admit that he has some arguments in his favor. After all, he does have a book, a 1944 "World Almanac," and it is interesting to read what the world was like before atomic energy. On the other hand, I'm a little embarrassed about two extra children — my neighbor's — racing across the lawn almost every evening to use *our* library, because our neighbor is letting us deprive him of the fun a family has unearthing facts together.

For instance, he missed the kicks the other evening when ten-year-old John slammed through the back door without knocking and headed for the library saying, "Wanta look up 'Cats' in the ency-

If you have good reference books handy the trick is to say, "Let's look it up"

clopedia. Our cat's eating birds again."

"If you'd feed him, he wouldn't eat birds," said our Sue reprovingly. "Poor cat, he's just hungry."

"Hold on," I suggested. "Before you convict John of cruelty to cats, let's look up 'Instinct'."

The encyclopedia quickly established that cats eat birds because they are cats and not necessarily because they are hungry. Then we went on to other fascinating manifestations of animal instinct such as "playing dead" when danger threatens, the march of the lemmings to the sea, the house-building talents of the bowerbird, the incredible homing sense of some animals and the air-bubble nest of the Siamese fighting fish. We even speculated about left-over primitive instincts in people (young John felt sure he had some). During our discussion we delved into eight or ten volumes of the encyclopedia as well as into specialized reference books. John left with new respect for his tomcat—and quite a few new ideas.

Four-year-old Henry was sitting on our back porch one Saturday afternoon watching a tree surgeon at work in our elms. "If trees are alive," he asked, "why can't they walk?"

That one was a peck of fun to answer. We began with preschool picture material in the Junior Instructor, swarmed through encyclopedia articles about plants and then worked our way into some of the wonderful Rutherford Platt and Carroll Lane Fenton books about nature. When we finished, all of us—two adults and four kids—had learned something, each at his own level of comprehension. Even a four-year-old could understand that in a way trees *do* walk—some species have traveled almost around the earth by sending their seeds before them.

Aside from the home bookshelf of indoor and outdoor cooking, which is a story in itself, a good basic home reference library should include the following

Lucky Dad—the answer's in the book!

kinds of books and materials.

Dictionary. We started having family fun with the dictionary when our first child was in the fourth grade in school, the grade at which dictionary use is commonly introduced. A "beginner's" dictionary works best for young children. If you think word definitions are easy without a book, just try to describe a raft to a young child. Or a cow.

In addition to the child's dictionary, I think every family should eventually invest in an unabridged dictionary. Here you can dig into the rich backgrounds of our language—where words came from, sample uses and how words have taken on new meanings. Our daughter Sheila was intrigued to learn that "sinister" means left-handed and that "opposability" does not mean the ability to be an opossum. With us, word-hunting turned out to be so entertaining it became a hobby.

Encyclopedia. The encyclopedia serves a purpose entirely different from that of the dictionary. The dictionary describes *words;* the encyclopedia describes *subjects,* from aardvarks to zygotes.

I believe the encyclopedia is the most poorly named of all books. Instead of these six ponderous Greek syllables, we should give a name like "Adventure Book" or "Fun with Facts" to our basic tool for finding answers.

We parents aren't nearly as well informed as our offspring think we are. We can't possibly know all the answers. Even a quiz-winning Pop is likely to be stumped by a question as simple as, "What makes it rain?" or "What do tadpoles eat?" or "How does a charged particle accelerator work?" or "Is a Bessemer furnace like our furnace, only bigger, and if not, why not?"

These four questions all arose in one evening at our house among children from seven to twelve years of age. We said, "Let's find the answers," and headed for the encyclopedia shelf.

The encyclopedia's a blessing, too, for parents harassed with their children's homework. Before you buy one, sample several and select the one you and your children like best. There are many good ones, each with its strong points and special features.

Don't worry too much about what educators call "levels of readability" in the encyclopedia you buy for your child. Some of the words may be beyond him, but you can help him form the habit of looking them up in the dictionary. Why miss the rewards of helping your child to understand what he reads? The ideal home learning situation is one in which child, encyclopedia and parent form a happy, comfortable triangle of knowledge-in-motion.

The Classics of Literature. While reference books help you to extend your child's mental horizons, a professionally edited set of classic literature helps to mold not only his thinking, but his emotional growth as well. Who will his heroes be? How will he react to the responsibilities of adult life? Great literature, keyed to the child's interests, aids you in the all-important task of character formation.

"The right story at the right time" is a precept for graded series of literature for children. As you read to or with your

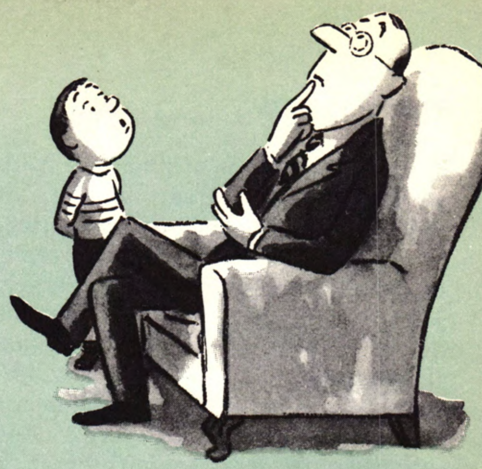
children, you will meet some old friends. Many of the classic stories for children, such as "Alice in Wonderland" and "Water Babies," have great appeal to adults.

A set of children's literature in the home stimulates the development of special interests in fiction and biography, leading a child into wider reading at the library and at home. Some sets include special activities for the younger children.

Is fiction part of a fact-hunting library? Yes—if only because many of the allusions in your child's daily reading and talking take on true meaning if he knows their setting in fiction, from "Cinderella story" and "birds of a feather" to "cabbages and kings" and "much ado about nothing." Modern educators emphasize that the well rounded and successful individual, no matter what his occupation, is one who has a good grounding in literature from childhood on.

Don't be too disconcerted by some of the quotations your children pick up from classic literature. Our eldest daughter's interest in college Shakespeare led seven-year-old Sue to appear on the stair as sleep-walking Lady Macbeth one evening when we were entertaining some visiting educators we didn't know too well. Starting off with "Out, damned spot! Out, I say!" she shrilly declaimed that famous speech and made quite an impression on our guests. It took several weeks for the "damned spot" to dryclean itself out of her vocabulary.

Maps. These include an atlas and, if possible, wall maps and a globe. An atlas has the great value of bringing one class of information together in a single easy-to-use reference work. Many atlases offer features which make them especially useful for planning a trip, tracing news events, following quiz programs or doing homework. Would you believe that all of South America lies farther east than Florida? Trace the longitude lines on the map



"If trees are alive, why can't they walk?"

in your atlas, and see.

A good-sized globe can be a constant magnet for youngsters — when they're started off well. It's a lot easier, with the earth circling right before your eyes, to see how there is no "up there" or "down here" on the earth, and that "where you are" can be thought of as the center of the world. With a piece of string stretched from point to point on the globe, you can show why the Great Circle Route is shorter for airplanes than a route following east-west lines of latitude. This is difficult for children to understand even after it is demonstrated, but so fascinating that they usually want to try it again and again across various segments of the globe.

Wall maps are great attention-getters. Put one up in a room your children pass through frequently and you will find them stopping to browse over the earth's lands and waters, learning as they go. "Here is where we went on our vacation." "The new boy at school came from here." Or, "This is where bananas come from."

The Book of Your Faith. This is an essential part of the reference library in a religious home. Your minister, priest or rabbi can suggest annotations or other supplementary reading to add to the historical background of your faith.

Yearbook and Almanac. Most encyclopedia publishers issue yearbooks. Both

FACT HUNTING

yearbooks and almanacs summarize the news and trends of the past year. You really need both. The yearbook surveys the year's events in narrative form and supplements the articles in the encyclopedia, recording the year's progress and trends in science and invention, vocational opportunities, politics and many other fields. The almanac provides summaries and tables of statistics on every conceivable subject, from the leading hitter in the National League to the number of television sets in Buffalo, New York.

This completes the list of your basic home reference books. Does it surprise you to learn that they take up only about four and a half cubic feet in your home? It may take a little ingenuity, though, to decide where the best spot is to put these fact-hunting books.

A teacher I know says she wishes there were an encyclopedia beside every television set and every dining table in the country. It's at TV-viewing time and mealtime, she believes, that questions most naturally arise.

Don't overlook the bathroom as a good place to keep informational books. Professor Max Patrick of Queens College tells of the English boarding-school headmaster who turned non-reading students into avid readers by installing shelves for books in the washroom. This may not work in a one-bathroom house, but the idea has its merits.

In our house, we have a library where books are supposed to be kept, but our reference books do a lot of traveling. Besides the three places already mentioned, they find their way into the children's rooms, into the basement where I may need the "E" section of the encyclopedia to check an electrical wiring diagram, out to the garden where shrubs require some well informed attention before spring arrives, over to my neighbor's house to help him build a new hi-fi set, and into our bedroom for some late night work on a tough question Sue asked me. We try to keep books off the front steps, but front steps do seem to attract children, dogs and books.

These wandering books are the books that belong to "us," meaning no particular person in the family has staked a claim to them. The books that belong to Sue and the books that belong to Sheila are different. We leave the kids' books strictly alone, or ask permission.

Some families have solved the problem of where to put reference books by stacking them on a library cart or home bookmobile. This can be wheeled easily from room to room. It has space for your basic home reference library plus newspapers, magazines and new books. The bookmobile may be parked beside the table for question-answering at mealtime or near the television set for quiz shows or educational programs. It's a comfortable companion for Mother in the afternoon before the children come home from school. In the evenings it rolls into the children's room for recreational reading or study. If you own a saw and hammer, you can make a bookmobile, which consists simply of two or three shelves mounted on large casters. If not, your librarian can tell you where she bought hers. An old tea cart may serve the purpose.

Once you've acquired your basic reference library, special interests may lead you to branch out in almost any direction —a book on baseball to help Father coach the sandlot team, a biography of Brahms for enlightenment about a new symphony record. As children reach the "collections" stage, there'll be requests for books on rocks and roses, bugs and battleships —well, you know.

The public library often prepares special reading lists for your guidance on both book buying and borrowing. The librarian will help you find and use published indexes to the available literature on any and every subject.

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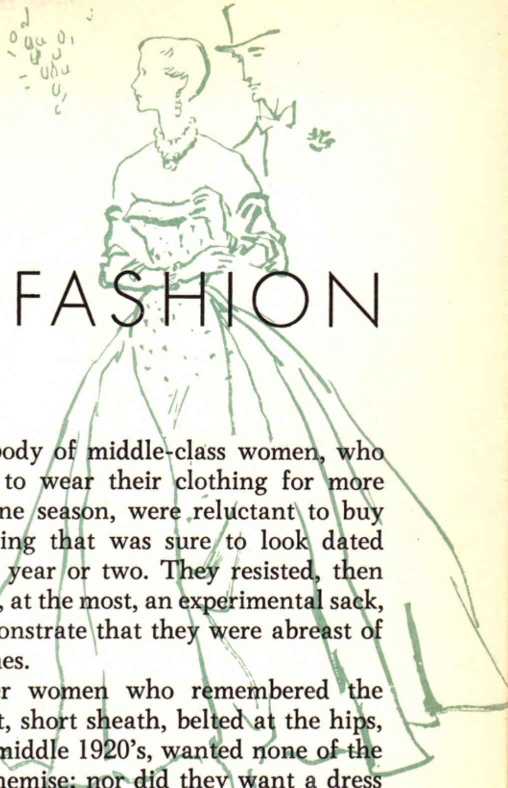


FASHION

Bags, Balloons, Trapezes. The essence of style is change, and it required no second sight to predict that the style in women's wear known as the sack or chemise would draw to a timely end. The demise of the sack was unmourned — save by manufacturers who found themselves overstocked with unsold models of this description. Most males were glad to see it disappear.

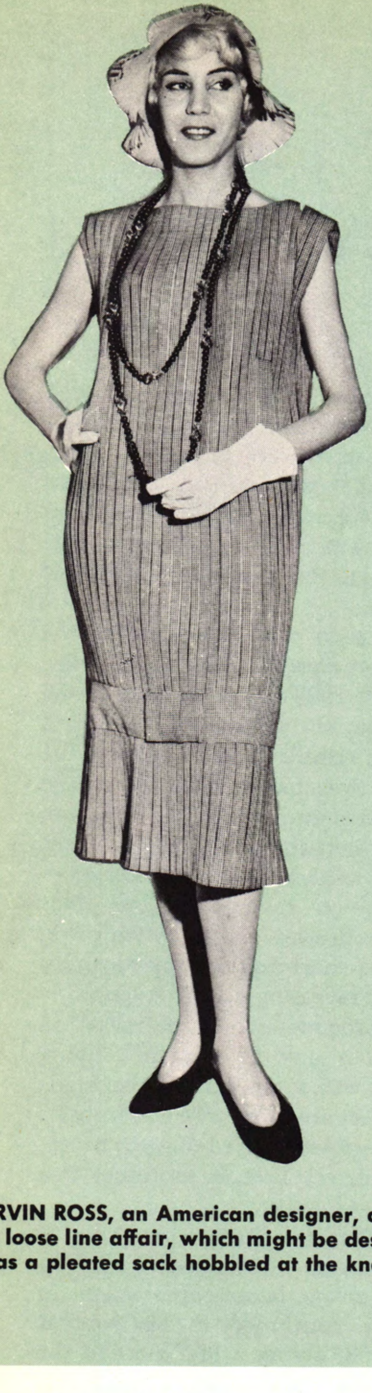
The loose unfitted line in dresses had been creeping up for several years—in fact, since the advent of the famous A-line of the late Christian Dior. It also showed itself in the mid-1950's in suits with short boxy jackets. In the spring of 1958, the sack burst into opulent billows. Most of the top American designers, following the European lead, showed variations of the basic bag. Manufacturers started turning them out, while promotion and sales staffs went to work to "sell" women on garbing themselves in clumsy-looking garments that often had the air of having been improvised for maternity wear. These baggy numbers, with bows, bulges, belts, and blousings at unusual places, evoked the observation that they had been designed by women-haters. Would women, conscious of their charms, be willing to hide them in potato sacks? Apparently many of them were. The undefined waistline and the shortness of the dresses, revealing a candid expanse of leg, made mamas look like their small daughters grown suddenly tall.

Women with more or less unlimited clothes budgets had nothing to lose if they purchased a sack or two of excellent materials and craftsmanship. They would serve as conversation pieces for at least one public appearance. After that, the quips became tiresome. At the other end of the clothes scale, working girls bought chemises of inferior workmanship and styling. These dresses had little charm, but youth and good looks have their certain appeal whatever the covering. The great body of middle-class women, who expect to wear their clothing for more than one season, were reluctant to buy something that was sure to look dated after a year or two. They resisted, then bought, at the most, an experimental sack, to demonstrate that they were abreast of the times.

Older women who remembered the straight, short sheath, belted at the hips, of the middle 1920's, wanted none of the 1958 chemise; nor did they want a dress that drew in tightly in the vicinity of the knees: that was too reminiscent of the hobble skirts of circa 1913. These mature women felt that their figures, while not perfect, did not deserve total obliteration. Mrs. Eisenhower rejected the sack. Nor were the new dresses favored by television stars, for the short and skimpy hemlines were all too revealing on the stage.

The bag promoted more wisecracks and cartoons than any style within living memory. It was succeeded by the high-waisted Directoire or Empire line in coats and dresses—which served to teach Americans the correct French pronunciation of Empire—Ahmpeer.

Shoes. Women's shoes with sharply-tapering toes and 3-inch heels ending in murderous spikes became the vogue in 1957. They continued to be popular through 1958, giving a big boost to the shoe industry. This radical change followed several seasons during which shoe styles, although well diversified, had been marked by comfort and informality. They were made of soft leathers, and often had



MERVIN ROSS, an American designer, created this loose line affair, which might be described as a pleated sack hobbled at the knees.

TRAPEZE SILHOUETTE was one of the many "little girl" effects achieved by Ives St. Laurent, successor to the late Christian Dior.

cushioned soles, open toes and heels. There was also a strong trend to the custom-made shoe. A pioneer in the "molded" shoe is Alan Murray, who makes each pair of shoes on plaster casts of the customer's feet, of leather impregnated with neoprene. For the wearer, these nearly indestructible shoes usually give complete

AN AMERICAN-MADE model is this "modified directoire" dress in green wool, designed by Mervin Ross.

THE FAMED CHANEL SUIT remains almost unchanged through the years. In this model, the jacket is framed in wide black braid, and the overblouse is in black silk jersey.

comfort for all-day walking—but at a cost of about $75.

In practicality and durability such shoes offer the greatest possible contrast to the new narrow elongated toe and high pointed heel of 1958. The latter reminded many women of the high laced boots of pre-World War I days. Students

of costume noted that they harked back to the Renaissance, when such fancy footwear marked a man as a person of rank.

Old-fashioned and conservative women regard the shoe functionally—as a covering for the foot; they maintain it should follow the lines of that extremity, giving it support. This view is not shared by the high-fashion shoe manufacturer, who considers the shoe a decorative receptacle to which the foot, indeed the whole body, must make an adjustment. The woman of fashion goes along with this notion and eagerly buys his offerings. She becomes less enthusiastic if she is obliged to walk a long distance on her tottering heels, or if the metal-capped heel has snagged her nylons, or even broken off. Heel failures, and complaints thereof, have impelled manufacturers to experiment with materials other than the customary wood and leather. They now use laminated wood, plastic, aluminum, magnesium, nylon, copper, and stainless steel.

Tiny feet have been much admired as a mark of beauty. They are rapidly disappearing. With every decade, women's feet seem to be growing bigger. In the 1920's, 4B was a very common size; today 7 comes more nearly to being average. The sales talk that goes along with the new narrow toe is that it makes large feet look daintier, even though it extends their length. The high heel, it is well known, shortens and tenses the muscles of the calf, making it rounder and plumper.

One podiatrist, who claims that he has spent 35 years trying to improve feet that were malformed by the 1914 craze for pointed toes, deplores today's styles. Other foot doctors are less drastic in their views; moreover, they know that the style—like all styles—won't last.

Levis. The type of blue jeans known as levis has an all-time record for popularity. Levis date back 109 years, to the California gold rush of 1848, when an enterprising merchant, Levi Strauss, went to San Francisco with a large purchase of dark blue canvas which he planned to have made into tents for prospectors. On learning that the need for durable pants was even more urgent, he had his material made up into jeans, double sewed and copper riveted at points of strain. These almost indestructible garments were known as levis, after their maker, who promised to replace any which became unsewn. Later the levis were often made of a strongly woven cotton material called denim, from the French city which originated it—"de Nimes," *from Nimes*. Levis have been popular not only with hard-working outdoor men, but also with active boys and girls, and with women when on camping trips or engaged in strenuous jobs in the garden or around the house.

Synthetics for Men. Men's suits made of synthetic (chiefly dacron) and cotton, wool, or silk mixtures have been very much in demand, especially for summer wear. These suits resist wrinkling; they can be washed and hung up to dry and worn without pressing. Travelers recommend them. Men's sport shirts continue to be gaily colored, with interest in superior fabric rather than wild patterns. The trend in men's street shoes is toward greater comfort and functionalism. Summer shoes are lighter, cut lower around the instep, and ventilated.

Textile Advances. No-iron cottons are soon to be available in men's shirts, sheets, and pillow cases. There is a new finish for woolens and leather that makes them stain resistant: oil and water can be blotted off, dirt and dust brushed off. Among the new synthetic fibers are Zefran, which dyes easily, dries fast, holds its crease; verel is strong, resilient, flame-resistant, and is being woven into blankets, draperies, and curtains; creslan is combined with wool to produce a fabric that resembles wool but is lighter.

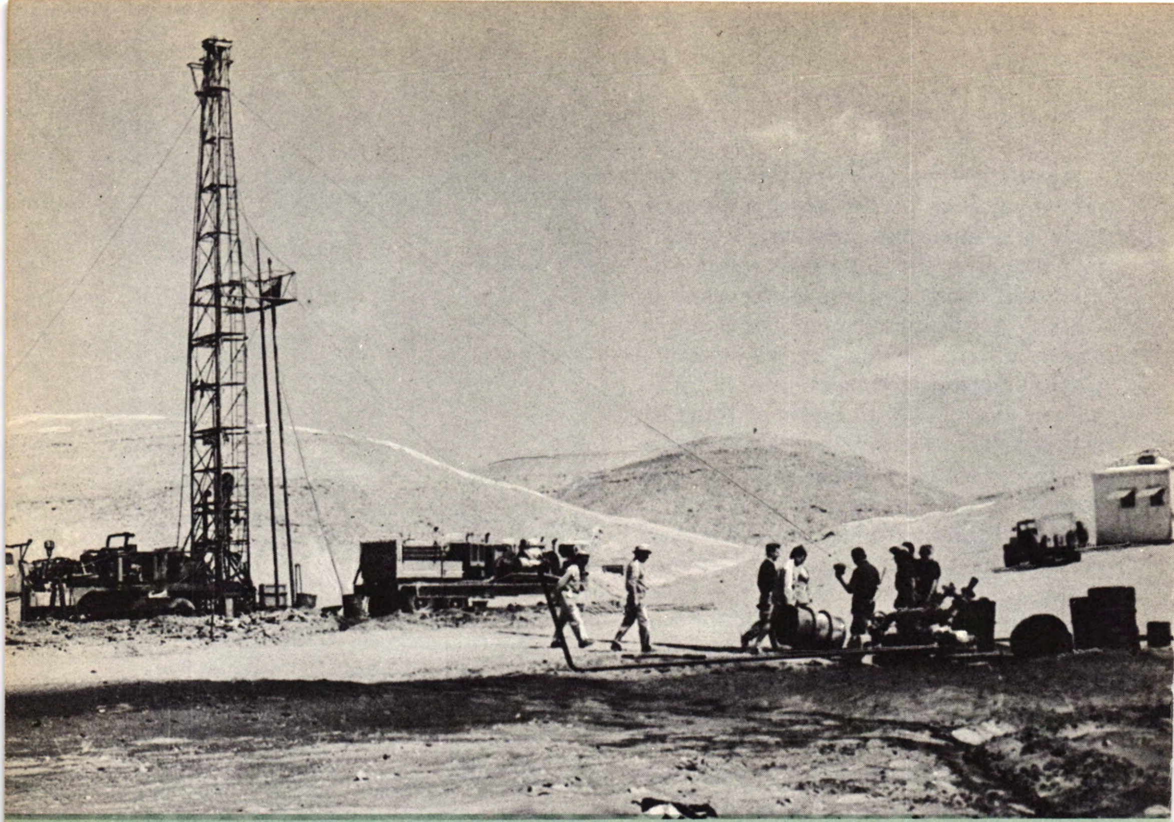
Approaching Crisis. By May, 1958, the government of France seemed to have reached a situation bordering on paralysis. Because of frequent changes of premier and cabinet, it could not come to grips with the serious problems on the domestic front. And as for its most important overseas problem, the Algerian war, it was unable to find a satisfactory solution. The Algerian struggle for independence, which had broken into open warfare in 1954, had dragged on for four exhausting and terrible years. It had been carried to France, where terrorist outbreaks were frequent. There had been thousands of casualties on both sides. A war few people of France wanted, military conscripts and their parents staged demonstrations against it. The French army in Algeria could not win it with the men and material that were sent from France. In fact, they were restrained from waging an all-out war. But they could not stop fighting, since the Algerian rebels would not lay down their arms to negotiate the issues.

Background. After the aging Petain had capitulated in 1940 and most of France was occupied by the Nazis, General Charles de Gaulle led the resistance movement from London. He paid a brief visit to the United States where his personal magnetism rallied support for the French cause. Through those years when all seemed lost, he kept people's spirits and hopes alive. He had a mystic faith in his own powers, as well as in the future of France. During the war, he even worked with the Communists, for they were operating one of the most effective resistance movements in France.

Roosevelt and Churchill both found him rather difficult to work with. Churchill (who probably regrets the jibe now) was reported to have said at that time, "The Cross of Lorraine is the heaviest cross I have to bear." The Lorraine Cross was the symbol De Gaulle chose for the

FRANCE

CHARLES DE GAULLE, now president of France, continues to exercise the extraordinary powers granted under the new constitution. He is shown here on one of his many recent trips to Algeria where he hopes to restore order.



THE SAHARA is now dotted with hundreds of oil-digging camps. Here in southern Algeria, at Ejele, there's plenty of oil but transporting it to the seaboard presents difficulties.

resistance movement. Roosevelt was reportedly impatient with the strong ego of the leader who considered himself a "man of destiny," and who was inclined to identify himself and his role with the sainted Joan of Arc.

De Gaulle and the Politicians. In August, 1944, when Paris was liberated by the American Army, De Gaulle was placed at the head of the provisional government formed at that time. He headed the first post-war cabinet. A professional military man, with slight political experience and not much patience, he was obliged to work with people of conflicting views. He sensed the importance of good relations with Russia, however, and one of his early acts was to fly to Moscow to sign a mutual-aid pact with the Soviet Union.

De Gaulle disdained the self-serving and self-seeking members of the National Assembly. Their division into a score of small political parties, without broad aims or programs, was wasteful and inefficient. Suddenly, in 1947, he left the government, retiring to the country, to live quietly with his family at Colombey des Deux Eglises, about 150 miles east of Paris. He was reading, writing his memoirs, watching the course of events, perhaps waiting.

Marking Time. These were years when France often appeared planless and rudderless. From the end of the war to the summer of 1958, the country had had 25 cabinets, led by 18 different men. French political life came to resemble a game of musical chairs, with the same players continually turning up in different positions. One after another found himself in the top position, as premier.

Premier Pierre Mendes-France, who served from June, 1954, to January, 1956,

was an outsider whose idea for settling the Algerian trouble seemed to involve ultimate independence for that country. He was not allowed to stay long enough in power to take any steps toward this end, but he at least was responsible for a satisfactory settlement for Tunisia. Guy Mollet, a Socialist, was premier for nearly a year, accomplishing little. Then came a time when governments lasted only a few months. In May, 1958, Pierre Pflimlin was called by President Coty to form a cabinet. He did so, and the government he formed lasted for precisely 15 days.

Toward Revolt. Events in Algeria had meanwhile been moving to a dramatic climax. A year earlier France had granted a large degree of self-government to Morocco and Tunisia, but was apparently determined to concede nothing in Algeria save a few political reforms. The French population of Algeria consisted of about a million *colons,* or settlers. Many were the sons and grandsons of settlers, for French families had been establishing themselves there for more than a hundred years. They formed the backbone of resistance to change. If Algeria's status were to be altered, they would find themselves second-class citizens, outvoted on every issue by the nine million native Algerians. The colons, then, blocked every move of Paris that seemed to promise more freedom for the Moslem population.

Supporting the colons was the army, especially the officers and the professional soldiers. Many of them had been sent to Algeria after the defeat of the French in Indo-China. Embittered by that experience they were not willing to yield again to a dark-skinned race. They and the colons suspected, when Pflimlin became premier in May, that the government was moving toward a cease-fire with the Algerian rebels. They resolved to act. Their leaders were tough, resourceful men. Gen. Raoul Salan was commander of the army in Algeria, and ably abetted by Brig. Gen. Jacques Massu, head of the French paratroopers there. The government of Algeria had earlier handed over police powers to the parachute corps to clean up bands of Algerian terrorists. These police powers were not given up but distributed among specially organized groups of civilians and military who became the "Committees of Public Safety."

The Crisis. This was the beginning of a complete breakdown of the French government's authority in Algeria. The army was in control. However, the position of the French rebels was hazardous. They were a minority among a hostile native population. Both army and civilians depended on daily supplies from France. Even if they held the upper hand in Algeria, which they seemed to do, that was not enough — they must win in

JACQUES SOUSTELLE, de Gaulle's minister of public information, is by profession an educator and anthropologist.

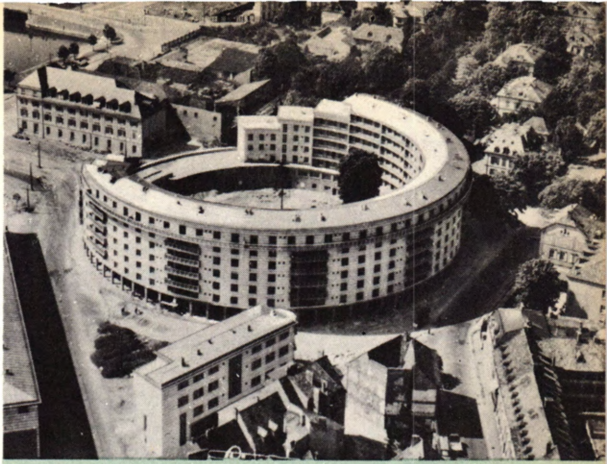
KING MAKOKO of the French Congo and his queen, dressed in royal splendor, arrive in Paris to celebrate Bastille Day.

France too, if they were not to face isolation and defeat.

The dissidents were well represented in France. Among the military and civilian population were old supporters of De Gaulle, men who wanted to revive France's glory and put an end to the humiliation of weak and ineffectual governments. These led what became a widespread public clamor for De Gaulle's return to power. It was known that the French in Algeria and the army there wanted De Gaulle. Although he had no personal organization and no party, he had strong support in many quarters.

De Gaulle's Return. De Gaulle, during these hectic days of May had been making hurried trips to Paris. He had also given out interviews to the press. He made it clear that if he were to return it must be by strictly constitutional methods. In an interview he said, "What is now happening in Algeria with regard to the mother country and in the mother country with regard to Algeria may lead to an extremely grave national crisis. But it may also be the beginning of a kind of resurrection. That is why the moment seemed to me to have come when it might be possible for me to be directly useful once again to France.

"Finally, I can perhaps be useful because I am a man of honor, identified with no party and no organization. For six years I have conducted no political action. For three years I have made no declaration. I am a man who belongs to nobody and belongs to everybody."



ARCHITECTURE in France has been slow to change, but this circular apartment building at Mulhouse, with its central play space, is a striking example of a new trend.

Questioned as to his attitude towards the leaders in Algeria, he answered briefly. Why should he condemn events in Algeria? The Algerians had suffered four years of war, and had seen their government turn to foreigners for assistance. As to his intentions, and how he would come to power, he replied mildly. Was he not a good Republican? Had he not restored the Republic? He had given votes to women and to overseas citizens, had enlarged the social services, nationalized mines, railways, and banks, had made possible the re-establishment of elected authority, and had retired from the scene when the parties emerged again.

The Socialists and Communists of Paris issued strongly worded denunciations and made street demonstrations against De Gaulle. Some liberals also opposed him, but the tide was sweeping too strongly to be resisted.

The National Assembly, after what was perhaps the stormiest session in its history, voted itself out of office for a long vacation. President Coty invited De Gaulle to assume power. The General made his conditions plain. He wanted a free hand for a year during which he would rule by decree; and a new constitution.

Although De Gaulle never spelled out his program for France in plain terms, he has some definite political theories, among which are his belief that an outworn form of government cannot reform itself—it disintegrates and collapses, and its end is accompanied by chaos and bloodshed. All this is foreshadowed by a drastic and swift change in public opinion.

First Problem—Algeria. After taking office, the 69-year-old De Gaulle flew to Algeria, where he visited various cities. This was the first of many trips there during the following weeks. He wanted agreement on integration for Algeria: this implied a closer tie than federalism, which was what many Algerian French wanted. And as for the native Algerians, they still desired independence, and a government in exile was set up in Cairo, under the leadership of Ferhat Abbas.

De Gaulle was successful in getting the Algerian French officers out of politics, by ordering them to resign from the Committees of Public Safety, and the Committees were dissolved. He ordered the army to see that in all Algerian elections Moslems of all tendencies were allowed to vote freely. This strong line relieved the minds of those who feared De Gaulle's Algerian friends might force him to pay a high price for bringing him to power, and use him for their own ends.

The Constitution. A draft constitution, prepared by the De Gaulle cabinet, was presented to a consultative committee in Paris in August. When it was made public it was attacked by moderates and leftists as a threat to democratic institutions.

It provided for a very strong executive power and a weakened legislature. The French president would be chosen for a seven-year term by an electoral college composed of assembly, senate, departmental and territorial assemblies. He would be the arbiter between parliament and people, with the power to dissolve the parliament after it had been in office for one year. He would be supreme head of

the armed forces, and negotiate and ratify treaties. He would name the head of a new constitutional council, to oversee the application of the new constitution. He would serve as president of a new French Federation, consisting of France and its overseas territories.

Parliament would be composed of an Assembly elected by the people and a senate elected by departmental and other local councils. Parliament would meet annually to vote on budgetary, social welfare, and other matters. Other legislation would be handled by government decree, but some checks by the Assembly were provided. The premier and cabinet would be named by the president, but would be responsible to the assembly.

Oui ou Non. In September the people voted on the constitution. Great placards appeared everywhere, urging them to vote. The referendum offered a limited choice—they could vote "Yes" for the De Gaulle constitution, or reject it, and probably get a dictatorship by the army. The liberty-loving French voted overwhelmingly for their new charter. In France and her dependencies, 31,066,502 voted in favor; 5,419,749 against. The new constitution and the Fifth French Republic officially came into being on October 5.

In the referendum, the French West Africa territory of Guinea voted itself out of the French Federation, and De Gaulle promptly severed its connection with France. The leftist premier, Sekou Toure, proclaimed the independent republic of Guinea. De Gaulle announced that he would delay recognition until the new government had shown its ability to rule. Some Asian and African countries recognized the new state.

De Gaulle started off by trying to improve France's fiscal position. He issued new tax regulations and price increases. Many groups of the right were rallying to his support.

One of the most influential members of the De Gaulle cabinet is Jacques Soustelle, by profession an ethnologist and archaeologist. He worked with De Gaulle during World War II, and later Mendes-France appointed him governor-general of Algeria, where he espoused the cause of the colons. Soustelle is information minister, having succeeded André Mal raux in that office. Soustelle, leader of the new Gaullist party, Union for the New Republic, has direct control of the French government radio, TV, and press services. Another member of the cabinet is the former prime minister, Socialist Guy Mollet. The majority of De Gaulle's associates are conservatives.

Before the elections of November for the National Assembly, De Gaulle offered to meet with Algerian rebel leaders and negotiate an end of hostilities. This was rejected as an invitation to unconditional surrender. The rebels made it clear that negotiations would have to center on the issue of independence. The rebels, at the year's end, continued to hold large areas of the Algerian countryside.

According to French law, a candidate not receiving an absolute majority, must be voted on a second time, with those running far down omitted from the list. The final results of the two elections, held on Nov. 23 and Nov. 30, showed a heavy majority for the De Gaulle party, and the Communists to have dwindled to a bare handful. More surprising than the defeat of nearly all leftists, was the fact that the moderate Algerians simply did not bother to put forth candidates for the 44 Assembly seats available to them, or to vote. The new Assembly will begin to function in April, 1959.

On Dec. 21, the 80,000 "grand electors," provided for in the new constitution, went through the formality of electing Charles de Gaulle president. France had a new leader, a new republic, but the same old trouble in North Africa.

GAMBLING

MECCA OF GAMBLERS is Las Vegas, Nevada, where you can play for nickels or thousands of dollars. According to a recent Gallup poll, 60 per cent of Americans are willing to take a chance. Many reasons for gambling are offered by psychiatrists—the need to suffer (by losing), love of excitement, to get even with fate. They say that just plain love of money is relatively unimportant.

Diversion or Disaster. The accepted definition of gambling is to risk money or something else of value on a game, device, or hazard, in which chance, not skill or knowledge is the decisive factor. The word has traveled far from its innocent origins: it comes from the Anglo-Saxon word for game, sport, or joy. To some addicts, gambling may bring not joy but misfortune, even hunger and a broken home. If it has reached the point of addiction, gambling is a neurosis. But for many others, gambling—far from being a game or sport—is a highly profitable business.

In general, the gambling habit eats into the savings of those least able to stand losses. It has a strong hold on superstitious people who believe that certain colors, letters, or numbers are lucky, or who follow hunches and even dreams when risking their money. Lotteries, foot-

ball pools, policy, and bingo are likely to attract low-income plungers, since a small wager may result in enormous winnings. Yet big-time winners are rarely happy afterward: they are bothered and bedeviled, and find it hard to adjust to a new status or to hold on to their money.

No Class Distinctions. But gambling is not confined to any one income group. Often it is the pastime or even the ruling passion of wealthy people. To them, winnings or losses may be of little importance: they play for sheer excitement. Those between the two extremes, the great majority, gamble in a random way, usually because they have been asked to "take a chance" on something.

Is gambling, then, a universal human drive? Statistical evidence is lacking, but a quick survey seems to show that in our society strict non-gamblers, who won't even buy a chance on a church raffle, are a very small minority. Gambling has been widespread all through recorded history. Archeological findings show that even prehistoric men had their gambling devices. Tacitus wrote about gambling among the ancient German tribes, and half-civilized and primitive people today play simple games of chance—if not for money, then for other things of value.

The Romans, during the Empire and the Republic, prohibited gambling save during their big annual splurge, the Saturnalia. They thought it weakened character, making men effeminate. The Greeks also had legal restrictions against it. Old men, both in Greece and Rome, were allowed to indulge freely in this vice—if vice it is.

Legal and Moral Aspects. One legal point might be mentioned: gambling debts have almost always been considered "debts of honor," not to be collected by legal action. Modern countries, with respect to organized gambling, have run the gamut from complete prohibition to complete freedom. In the United States, Federal laws control interstate gambling operations, but the states themselves enact laws on gambling—and these are extremely various. National lotteries and sweepstakes, under government auspices, are used in many countries. The proceeds are usually divided about equally between the lucky winner and the cause, be it a charity or the government's treasury. Some countries, including Spain and several in South and Central America, regard the national lottery as a painless form of taxation.

The latest country to use such a scheme was Great Britain. In 1956, when Harold Macmillan was Chancellor of the Exchequer, he issued government bonds which carried no interest but returned large prizes to a few purchasers holding winning numbers. Similar methods for raising revenue have been proposed in the United States by former Budget Director Brundage, and others, but they have never been approved. The question of whether lotteries in a good cause are morally defensible has lately been much in the news. Local disputes have focused on bingo games and raffles, held under church and civic auspices, with most Protestant clergy often lined up against these money-making devices.

Staggering Sums Change Hands. While there is no way of finding out what percentage of the population engages in games of chance, there are some figures on how much is spent on accountable and public forms of gambling. The most recent estimate is that $23 billion is the annual world total. An additional huge sum, quite untraceable, changes hands privately in card games and in other sorts of wagers.

Twenty-three billions is a staggering sum, and, as you might have guessed, a good share of it was risked in the United States, where all types of gambling have increased in recent years. Only Australia and Great Britain are in the billion-dol-

lar betting class, the former with $1.5 billion and the latter with $1.4 billion. Brazil and West Germany follow, with under half a billion each. Per capita betting is highest in Australia, with an estimated $160 a year, as compared to an average of $60 for U. S. citizens, and $50 for New Zealanders. Great Britain and Sweden are next in line. There are no figures for China, but the Chinese are reputed to be avid gamblers. The Ceylonese are another Asiatic people who believe in taking a chance on practically anything.

Horse racing is the most popular method of losing money, in the United States and in the rest of the world. It is estimated that Americans spend some $7 billion, in ways legal and illegal, on the horses. Slot machines and similar devices account for $3 billion and numbers games or rackets for another $3 billion. In other countries, lotteries and football pools follow horse-racing in popularity.

Glamour and Glitter. Games of chance played around casino tables in elegant surroundings, with a croupier in charge —this is a form of gambling that involves fewer people and smaller totals, compared to horse-racing and pools. Cities famous for this glamorized gambling are Reno and Las Vegas, Nevada, Havana, Cuba, and Monte Carlo. The resorts which make a lucrative business of gambling are startlingly different. The town of Monte Carlo, capital of the 368-acre principality of Monaco, is the perfect setting for light opera, with its resplendent casino, neat historic buildings, marine museum, and well-tended parks and gardens. Poised above the blue of a sheltered Mediterranean harbor, with a backdrop of Maritime Alps, Monte Carlo offers unusual natural beauty along with an air of sophistication, tradition, and refinement. Monte Carlo's attractions have been even further enhanced by its new princess, the former Grace Kelly. The Grimaldi family and Monaco's tax-free citizens will no doubt continue to prosper on casino revenues. In 1958, however, the casino operated at a loss because of huge winnings.

One-Armed Banditry. Las Vegas, American gambling capital, had few natural advantages, no ancient ruling family, no picturesque buildings. Hot and dusty, the raw frontier town lay in the valley of the Colorado River, surrounded by a vast expanse of desert and austere mountains. Determined promotion plus the opening up of the great recreation area of Lake Mead, around and above Boulder Dam, have combined to turn Las Vegas into an interesting spot, if not a thing of beauty. Here gambling revenues help pay for excellent schools and other public services, including rescuing those who find themselves stranded after an evening at the tables. Although the hotels and casinos may offer luxurious surroundings and spectacular entertainment, an atmosphere of the Old West lingers. Dress and manners are relaxed. You may stake nickels or thousands without bothering to dress up for the kill. In recent years Las Vegas has become a stopping place for transcontinental motorists. In addition to tourists, both Reno and Las Vegas have attracted enough petty criminals and riffraff to keep the local police well occupied.

Havana, the third city to develop as a gambling center, attracts a monied crowd, particularly from the South American countries. Cuba's uncertain political situation keeps Havana from becoming a rival to the other two towns at present.

If you want to gamble, remember that the manufacture of cheating devices—loaded dice, marked cards, and slot machines that are geared to make high profits for their owners—is a big business. Also, organized gambling, when it is not sponsored by governments, is usually in the hands of crime syndicates.

GOVERNMENT PRINTING OFFICE

Billions of Words. The United States government is far and away the biggest publisher in the country. According to Superintendent of Documents Carper W. Buckley, approximately 30,000 of its publications are currently available to the public. They cover nearly every aspect of human interest and human knowledge—health, homemaking, wildlife, finance, mining, census, foreign trade, taxation, international relations, and hundreds of other topics. Whether you seek information on how to build a better lawn, invest in the stock market, cure the diseases of hogs, fight a fire on shipboard, the government can supply you with an appropriate pamphlet. From weed control to weather, from zirconium to Zhukov, from peanuts to postage stamps, from radar to rabies—virtually nothing has been overlooked. Among the popular publications of recent date have been those having to do with aging—on which subject there are more than 40 separate items, covering the problem of the older person's getting a job, his Social Security, health, and hobbies for retirement. At the other end of the life span is the series published by the Children's Bureau. These have gone through many revisions and have proved all-time best sellers. *Infant Care* (.15) has sold more than 10 million copies since

it was first published; *Pre-natal Care* (.15), half a million; *Your Child from 1 to 6,* nearly 4 million; *Your Child from 6 to 12,* a million and a half.

Two million copies of *Your Federal Income Tax* (.30) have been sold. *Postage Stamps of the United States* ($1) and *Know Your Money* (.20) are extremely popular items. Pamphlets on various aspects of Communism have sold heavily, as have those dealing with the subject of atomic energy.

The Office of the Superintendent of Documents today employs 500 persons who sell more than 50 million publications annually, adding up to returns of more than $6 million. In addition to sales, some 75 million items a year are distributed free to libraries and to those on departmental mailing lists. The office processes an average of 8,000 orders a day, and annually answers about a million and a half letters of inquiry concerning government publications.

Distribution. The public learns of the availability of government publications by means of various catalogs and price lists. In addition to free subject price lists, a monthly catalogue of publications issued during the month is sold on a subscription basis, and is available in most libraries. A biweekly list of selected publications may be obtained without charge. Remittances may be made by check or money-order. To avoid sending small coins through the mails for publications priced at five, ten, or fifteen cents, the prospective purchaser obtains special document coupons sold in blocks of 20 for $1 and good until used. A prepaid deposit account of $25 or more is usually established by those who make regular purchases in volume. More than 22,000 depositors use this system.

Although the sale of government publications is largely a mail-order business, the Superintendent of Documents operates a busy modern bookstore in the Government Printing Office in Washington. On display here are about 2,000 of the more popular publications and others may be obtained quickly from storage areas. There are branch bookstores in Washington and regional bookstores in principal cities of the United States. Government publications purchased in quantity—100 or more—by book dealers or others are subject to a 25 per cent discount.

Many of the government's publications are illustrated, hard-cover books. An especially valuable stream of books and serial publications comes from the Department of Agriculture. Probably the most expensive book to date is the latest U. S. legal code, at $68. One rather unusual item is a book composed of the prayers offered by the late chaplain of the Senate, the Rev. Peter Marshall.

Origin. You may wonder how a government book, leaflet, or pamphlet comes to be published. All items are sponsored by some government department, bureau, or agency, which is regarded as the publisher. Often publications are prepared in response to requests from the public. At other times, the idea is generated in the department. Staff members write and edit the text. Occasionally an outsider with special qualifications is commissioned to write or edit a government publication. When completed, the manuscript is cleared by the department head, and goes to the Government Printing Office. Many of the publications are printed on presses operating within the various departments. In any case, the department of origin has facilities for distributing them.

If the item is sent to the Government Printing Office, it will be fitted into a crowded production schedule. Here 365 type-casting machines and 200 presses are constantly at work under the direction of Government Printer Raymond Blattenburger. Government printing employees are highly skilled workers. They are guided by the *Government Printing*

Office Style Manual in matters of spelling, capitalization, hyphens, and other editorial details. This publication, by the way, has a steady sale at $2.75 a copy.

Public Printing versus Private. No precise boundaries have ever been drawn around the field of government publishing. Certainly it has expanded far beyond what was expected when it was founded in 1860. Its broad scope and its system of pricing are today criticized by commercial publishers who charge that it infringes on their territory. Since the government uses writers and editors already on the payroll, it doesn't have to pay author's royalties. It employs no promotional staff, buys no expensive advertising space. With low overhead, it produces books much cheaper than the trade publishers can, in some cases at one-fourth the cost. Although not required to show a profit, the GPO turns over a considerable surplus to the Treasury every year. Many of its hard-cover books are priced within the general price range of books of similar type and quality. The Eisenhower Administration is on record as favoring a decrease in government publishing.

Recording Congress. The GPO prints Congressional documents, committee hearings, and reports—which may total as many as 6,000 separate items during a session. The more than 12,000 bills which may be introduced must be printed. Among the dozens of serial publications that issue from the GPO, the most important is probably the *Congressional Record,* published daily when Congress is in session.

The production of the *Record* is a daily miracle. It averages about 140 pages, three columns to the page. Sometimes it runs to double that number of pages, if members have been generous with the insertion of miscellaneous matter. *The Record* is made up of the daily proceedings in both Houses of Congress, which have been recorded by expert shorthand reporters; there is also an appendix, consisting of reprinted editorials, verses, letters, essays, even recipes and jokes, and, on at least one occasion, a whole book.

During the day and evening members are given the transcripts of their speeches to edit. The lawmakers are permitted to expand, expunge, and correct until the last possible moment before press time. The changes are generally of a nature to please or impress constituents. Messengers are sent to round up these final revisions, from homes and offices, and even from Washington restaurants.

On days when Congress is in session until after midnight, speed and efficiency are needed to get the text set, proofread, printed, bound, and distributed. By seven o'clock every morning it is delivered to the doors of Senators and Congressmen, and by that hour copies are in the mail to subscribers throughout the country. Each member may send out a limited number of subscriptions to the *Record.* These go to influential constituents, mainly publishers, editorial writers, educators, businessmen, and politicians. There are also many paid subscriptions.

Toward Shrinking the Record. In view of the changes which are permitted, the *Record* is not, obviously, an accurate account of proceedings. Sen. Richard L. Neuberger, a comparative newcomer in Washington, was shocked at the size—and the unreality—of this publication. He has introduced a resolution that would prevent any substantive change in the matter taken down by Congressional shorthand reporters. Grammatical and other minor changes would be allowed. The resolution would also limit the amount of extraneous matter that could be inserted. Senator Neuberger thinks such changes would dignify the *Record* as well as reduce printing costs. The government spends $1,700,000 each year to print 43,000 copies of the *Record,* and any reduction in size would reduce costs.

Popular Prime Minister. Although Harold Macmillan was inexperienced in statecraft when he became prime minister in 1957, he quickly earned a reputation as an astute politician. His personal popularity and the success (with one or two important exceptions) of his middle-of-the-road policies have had the effect of disarming the Labor party opposition. Labor's leaders, Aneurin Bevan and Hugh Gaitskell, have criticized the government's atomic policy, however, and have called for a renunciation of nuclear bomb testing and urged more support for a disarmament program.

The Conservatives have continued health and welfare services, and increased appropriations for this purpose have been granted by Parliament. The numbers of the unemployed, due to the business recession, have not caused the government much concern. There were serious strikes in the transport services and in some segments of industry.

Macmillan spent four weeks in the spring of 1958 touring India and other Far Eastern Commonwealth countries. He also met with Prime Minister Diefenbaker in Toronto and with President Eisenhower, in Washington. While in the United States he visited his mother's birthplace in Indiana, and received a degree from De Pauw University.

Britain's Negro population was reported as 100,000 in 1958, and was said to be increasing at the rate of 25,000 a year. The increase is largely due to immigration from the West Indies. There were several ugly racial clashes in London and Nottingham.

President Theodore Heuss of West Germany was received by Queen Elizabeth II on October 20. It was the first visit of a German head of state to Britain since 1907. During his visit to England, President Heuss donated $14,000 to help in the reconstruction of Coventry Cathedral, reduced to rubble by German bombers in World War II.

SEAT OF POWER for the British Empire is the ancient structure at 10 Downing Street, London.

House of Lords and Ladies. Will it in the future be called "The House of Lords and Ladies"? At all events, in October the British House of Lords admitted to full membership four lady peeresses, who will serve in the upper legislative body for life.

Wearing their official robes and black velour tricorne hats, they did not look too unlike the Lords around them. Baroness Swanborough, Lady Reading, was the first to kneel at the woolsack, before the Lord Chancellor, to receive this honor. She is famous for her philanthropic work and is a leading figure in many progressive causes. The other life members are Barbara Wootton, Laborite economist and broadcaster, Baroness Ravensdale of Kedleston and Baroness Elliot of Harwood. The latter was the first

APPOINTED BY THE QUEEN to sit in the House of Lords were, left to right, Dame Katharine Elliott, Prof. Barbara Wootton, Baroness Ravensdale, and the Marchioness of Reading.

woman to debate in the house of Lords in its 900-year history.

The House of Lords has played a dwindling role in legislative affairs. Perhaps the addition of women—one or two of whom played a vigorous part in the women's suffrage battle in the opening years of the century—will add to its effectiveness.

Cyprus. Great Britain's most persistent worry in 1958 was the island of Cyprus. Milder measures used by the Greek Cypriots included a kind of passive resistance and a boycott of British goods, but the pattern was mainly one of violence. Acts of terrorism were frequent through the year, save for a brief period of truce. The terrorist acts were the work of E.O.K.A., the Greek underground movement, led by Col. George Grivas. They seemed to concentrate on military installations and supply dumps, but a British uniform was fair game and even a few British civilians were attacked. One Englishwoman was killed.

The British forces on Cyprus retaliated to terroristic acts with severe measures, and many Cypriots have been killed. Although the British have 30,000 men on Cyprus, they cannot end the violence. They can only try to contain it.

The Macmillan government proposed a political solution, labelled "an adventure in partnership," and invited Turkish and Greek Cypriot leaders to meet with the British to discuss it. It was designed to bring Cyprus under limited tri-partite control, with separate systems of self-government for Greeks and Turks. The plan was looked upon with some favor by the Turkish minority, but the Greeks would not consider it. Meanwhile Archbishop Makarios, Greek leader, seemed to have yielded a little from his stiff demand for union with Greece. He now asks for independence, under United Nations supervision, and appeared at the Assembly to present the case for the solution.

Jordan. Another Near East involvement was the sending of British paratroopers from Cyprus to Jordan, at the time of the Iraqi coup. Britain promptly recognized the new regime and the troops were withdrawn after two months. Britain also recognized the new government of the Sudan, which gained power by non-constitutional means.

ALTRO WORKSHOP, Bronx, New York City, is a clothing factory which provides work for the tuberculous and other types of handicapped persons in a sheltered environment.

THE HANDICAPPED

President's Committee. Ever since it was set up in 1947, the President's Committee on Employment of the Physically Handicapped has focused public attention on this problem. The Committee's stated purpose is to create nationwide interest in the rehabilitation and employment of this segment of the population. The movement has the support of more than 350 citizen organizations, from the ranks of business, labor, religious, medical, women's, veterans', and civic groups. The President's Committee is not itself concerned with rehabilitation and job placement. These services are assigned by law to Federal and State government agencies, and are also the concern of the many public-spirited organizations. The Committee engages in a wide range of activities—informing, advising, and assisting State and community agencies; preparing and distributing posters, films, handbooks, pamphlets, and a monthly magazine and newsletter. It also sponsors an annual essay writing contest in high schools and a national art contest, both on the employing of the handicapped.

Definition. The government established

standards and definitions for the employment of the handicapped just prior to World War II. At that time the heavy induction of men into the armed services left a scarcity of civilian workers. The nation's handicapped formed a reserve of manpower waiting to be used. For purposes of government, employment, the Civil Service Commission considered as handicapped those persons afflicted in the following ways:

1. Persons who have amputations or orthopedic deformities of one or more major members.
2. The hard of hearing and the deaf.
3. The blind, the industrially blind, and those blind in one eye.
4. Persons with serious impairments of vision as to color and depth perception.
5. Persons with arrested pulmonary tuberculosis.
6. Persons with compensated heart disease.

Further, the handicap is defined as static and permanent in nature, as distinguished from active and progressive; it is one that cannot be corrected by medical or surgical measures.

The government's experience helped to establish procedures and also built up a body of evidence on the competence of handicapped persons which made it easier to sell the idea of employing them.

Rehabilitation and Research. As used in private business and industry, the term handicapped covers a broader range of disabilities, curable and incurable. It even includes psychological handicaps. A Jewish agency in Chicago has had great success in helping persons who, though physically able to work, lacked motivation. Some had their ability to function impaired by spending years in displaced persons or concentration camps. The agency has been able to rehabilitate three-fourths of these to a point where they could hold down jobs.

The Office of Vocational Rehabilitation received from Congress an appropriation of $3,400,000 to cover research and demonstration projects concerning four forms of disability: the home-bound, the blind, including the deaf and blind, and the chronically ill in the over-45 age group.

One project carried out by this government department concerned the rehabilitation of paraplegics, who have been considered hopeless as far as employment is concerned. One hundred young adults so afflicted were rehabilitated. All but eight found employment, either in competitive jobs, sheltered workshops, or training schools. The government is also aiding financially about 100 "work adjustment centers" throughout the country for persons with emotional handicaps.

Objections Discounted. A percentage of employers have always taken the trouble of finding a niche into which a handicapped person could fit, and not always out of benevolence. They knew that the handicapped worker, given tasks within his abilities, performed as ably as any other and was often more industrious and conscientious. Some employers maintained that the presence of a handicapped person had a bad effect on the morale of other workers, and that such persons were more prone to absences, illnesses, and injuries. There is very little evidence to support any of these claims. As for morale, the effect could be the reverse of that charged. The challenging example of a disabled person who carried his fair share of work might inspire the non-handicapped to do better. There is a good deal of agreement among office managers that a worker with a psychological handicap (persecution complex, power complex, a busybody, a chatterbox, or whatever) can be far more destructive of group morale and efficiency than a physically handicapped one.

Mechanical Devices. After World War

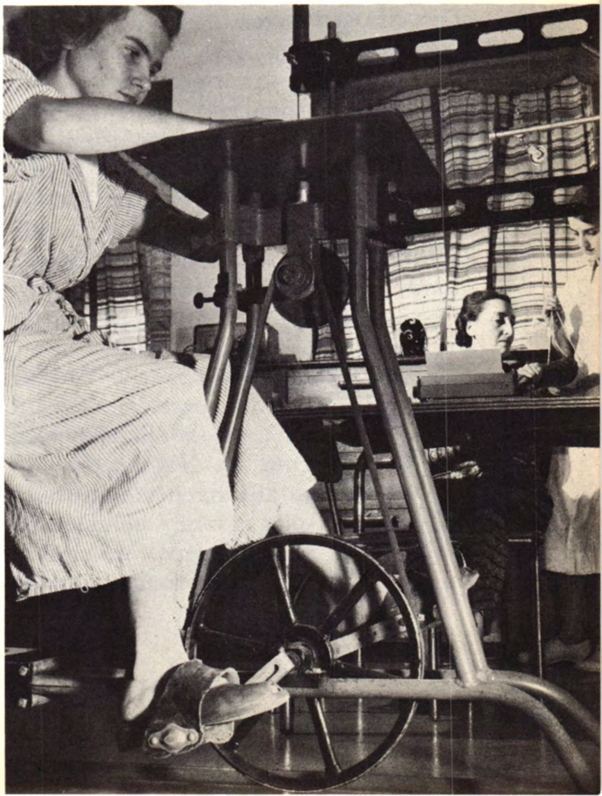
II many new therapies, as well as machines, for broadening the range of physical and mental activities of disabled persons were developed. These include very efficient artificial hands and feet. Training in the use of prosthenic devices was an important part of the rehabilitation work carried on in many veterans' hospitals. Thousands of badly-maimed soldiers were returned to civilian life, able to hold their own in a competitive world.

Some of these disabled veterans started businesses of their own, in which they employed only handicapped personnel. Abilities, Inc., of New York, is one of these. Its president, legless Henry Viscardi, Jr., employs 300 persons, who receive prevailing rates of pay, although nearly all of them are handicapped. The product is electronic items, and the business grossed $1,826,400 in 1957. Viscardi has presented his annual report in the form of a long-playing record. Such examples as this encourage other employers to give the disabled a chance.

Sheltered Workshops. Social service workers learned long ago how intense was the desire of the handicapped person to be independent and self-sustaining. This anxiety is even greater when the disabled one has dependents looking to him for support. For them, the hurly-burly of shop or factory, the difficulties of transportation are too great a strain. Yet they are capable of part-time work in a favorable environment. For these, the sheltered workshop was devised. Altro Workshops, an agency sponsored by the Jewish Charities of New York City was a pioneer institution in this field. It has been performing its twofold role for more than 35 years. It is a sanitarium and rehabilitation center for the tuberculous as well as a factory for the production of hospital garments and uniforms. Altro has something of the air of a sanitarium, with its sun-decks, spotless diet kitchens, and nurses—with this difference, its patients are producers and earners. Each patient is given as much paid-for skilled or unskilled work as the doctor in charge thinks him capable of. Altro's sewing and cutting machinery are up-to-date. It has helped thousands back to health while maintaining their old skills or giving training in new ones. It has lifted the morale of all who have shared in its program. Recently ex-mental patients and heart patients have been accepted at Altro.

For Epileptics. Epilepsy is far more prevalent than is generally realized; also it is less fearsome. Save for the brief moment of seizure, the epileptic is no different from others. In Los Angeles, there is a workshop for epileptics, started for former servicemen by the Veterans Administration. It has now become a community-wide project, admitting non-veterans, and supported by private and Federal grants. In this plant, called Epi-Hab, contract items, some of them requiring high skill, are made for a number of man-

THIS YOUNG WOMAN operates a pedal-type jigsaw to strengthen leg muscles.



ufacturing concerns, including aircraft companies. Those who work at Epi-Hab have experienced a progressive decrease in the frequency and intensity of their seizures, which are often associated with fear and tension.

Good Will Industries. Collecting used and broken articles, including furniture, toys, and clothing, having them mended and refurbished by handicapped persons, then selling them, is the basic idea of Good Will Industries of America. The idea made such a strong appeal to the public that the enterprise is now nationwide in scope. In 1946, 940 handicapped workers were employed in workshops and retail outlets; in 1957 the number given employment was 31,000. There is, moreover, a constant flow of such workers, some of whom were classed as seriously handicapped, into competitive employment. After the training in various skills in the Good Will shops, they could face the world confidently.

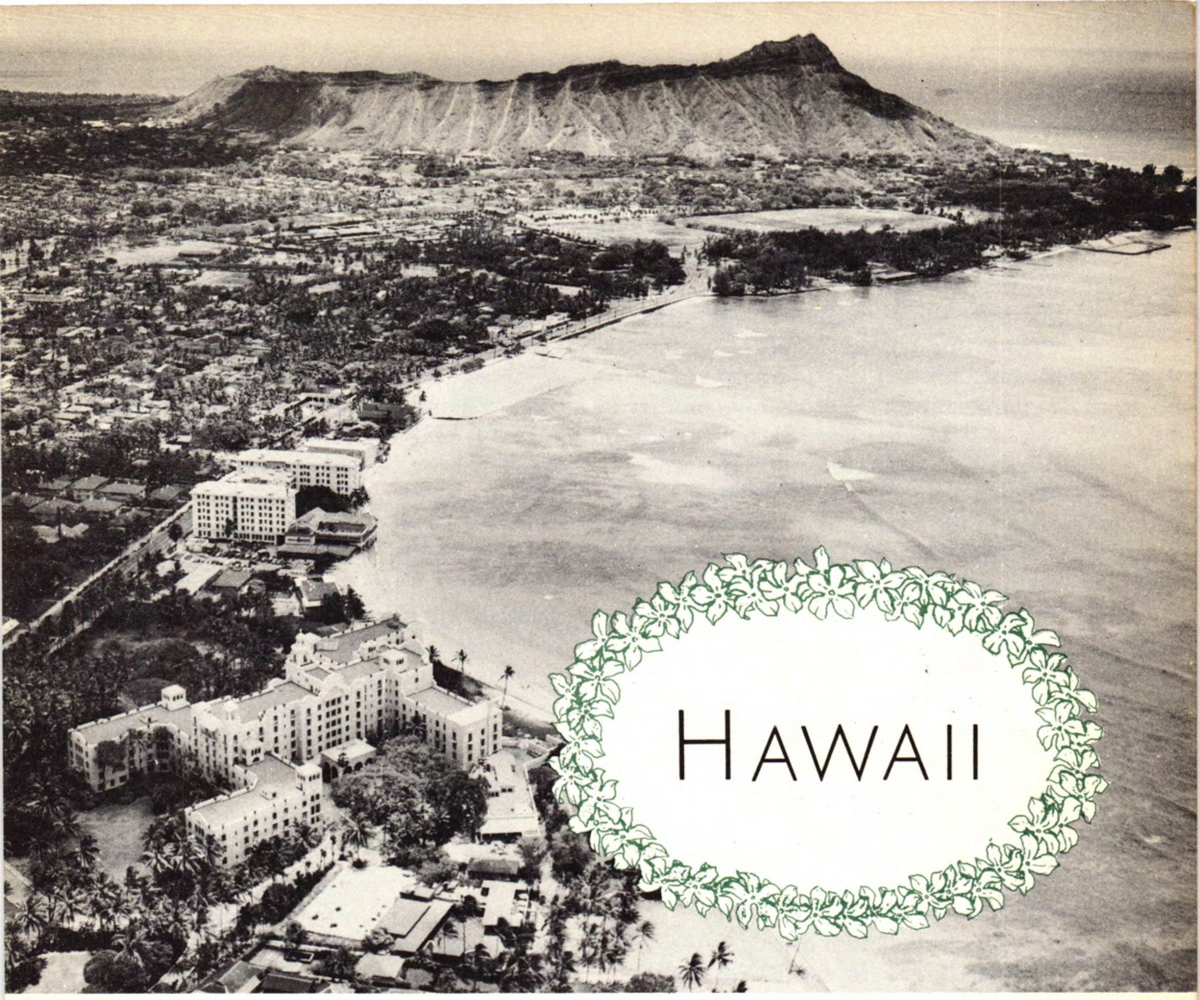
Further Gains. Specialists in the employment of the handicapped are now a part of the staff in many State employment offices. Personal interest on the part of governors is increasing, and many local committees of employers have been set up as a result of these various efforts.

Among individual employers who have helped the cause was the late Arde Bulova, Board chairman of the Bulova Watch Company, winner of the President's 1957 award. Large numbers of the handicapped are employed in Bulova factories. Many of them were trained there. Mr. Bulova succeeded in getting many major employers to follow this example.

Some Psychological Aspects. Various social and community approaches toward improving the lot of the handicapped have been touched on. Nature, too, has ways of making any handicap easier to live with. Self-pity is rarely indulged in. The person's reserves of power surge to the surface, giving him assurance. The handicapped think, and want others to think, in terms of their abilities, not their disabilities. New capacities are sometimes awakened when necessity forces a change of occupation. In the case of most handicaps, certain compensatory faculties develop. If the person is deprived of one sense, other senses become keener. A physical handicap, in some cases, becomes an advantage by reason of this heightened sensibility. It was demonstrated during the war that a color-blind man was better at detecting camouflage from the air than one with normal vision, since the handicap resulted in more acute perception of the textures of a landscape. And it is well known that the senses of hearing, smell and touch, as well as spatial memory, all become greatly enhanced when sight is lost.

Scope of the Problem. Estimates indicate that there are about 30 million persons in the United States—almost 20 per cent of the total population—who have some type of chronic disease or impairment. Of this number, some 5.3 million are long-term disabled — persons who have been unable to work or carry on other activities on a regular basis for more than six months. About 10 million of the total figure are too old or too young for the labor market. The employed group of handicapped persons numbers about 6 million. Some two million disabled persons are still in need of vocational rehabilitation services to prepare them for suitable work.

Statistics show that approximately 250,000 persons each year suffer accidents or disabling illnesses that make them candidates for vocational rehabilitation. Existing training facilities are not adequate to take care of this number. And there is, unfortunately, a large group of retrained persons, ready and qualified for work, who have not been able to find employment. The needs and the abilities of this group should be given consideration.



LUXURIOUS HOTELS line the half-moon of Waikiki Beach, where the constant temperature makes water sports a delight to vacationers.

A Fiftieth State? A discussion of statehood for the Territory of Hawaii will most certainly be on the agenda of the 1959 Congress. Mainland citizens, as well as their Congressmen, will be considering the issues involved. Should a group of islands out in the Pacific Ocean, 1500 miles from the North American continent, with a population predominantly Asiatic, become an integral part of the United States?

The issue is not a new one. It was broached more than a century ago, in 1853, when King Kamehameha III of Hawaii proposed to the United States a treaty whereby the islands should become a state, with a large grant given to him and his chiefs. Congress rejected the proposal at that time. In 1898, Hawaii, then a republic, was annexed to the United States by its own request, and the development of this island paradise with mainland capital was started. The desire for statehood accelerated. In 1940, the people voted 2 to 1 in favor, but before Congress could act, war had broken out and the question was postponed. Since 1947, Congress has repeatedly rejected bills for Hawaiian statehood.

The Arguments. Hawaiians working for statehood claim that as a territory Hawaii is "taxed but not represented." The United States President appoints Hawaii's governor and judges. The peo-

ple of the islands elect their own legislature, as well as a delegate to sit in the House of Representatives in Washington. Although he may speak freely on any question, the Hawaiian delegate has no vote on the tax rate imposed on its citizens or on other questions that affect its welfare. Hawaiians serve their country in war and fulfill all other obligations of citizenship. Therefore, declare the proponents of statehood, they should not remain in the second-class citizen category.

Taxes, Land, and Labor. In general the tax set-up is thought to favor the large landholders. These and certain industrial groups are said to prefer Hawaii's present status. The plantation system, with the peonage that goes with it, has prevailed in Hawaii since the early days, and has served to give powerful interests a decisive voice in Hawaiian affairs. It is this situation also that has given the Communists a toe-hold. Strikes and clamor for a better distribution of land have marked recent labor history in Hawaii. Thirty per cent of the land is owned by 12 families and companies. Only 11 per cent is owned by persons holding less than 5,000 acres each.

Many Races. Many races live together in unusual harmony in Hawaii. Successive waves of immigration have resulted in a pretty thorough mixing of racial strains. Of Hawaii's 550,000 population, Caucasians or "whites" are a minority group composing only 24 per cent of the total. Japanese-Americans make up 36 per cent, Hawaiians and part-Hawaiians are 22 per cent. There are not many pure Hawaiians these days. Chinese-Americans and Filipinos total 7 per cent each, and Koreans 1 per cent. The racial question is one that probably will not be ignored when statehood is considered. Color-conscious Congressmen are likely to point out the possibility of an Oriental being elected to Congress.

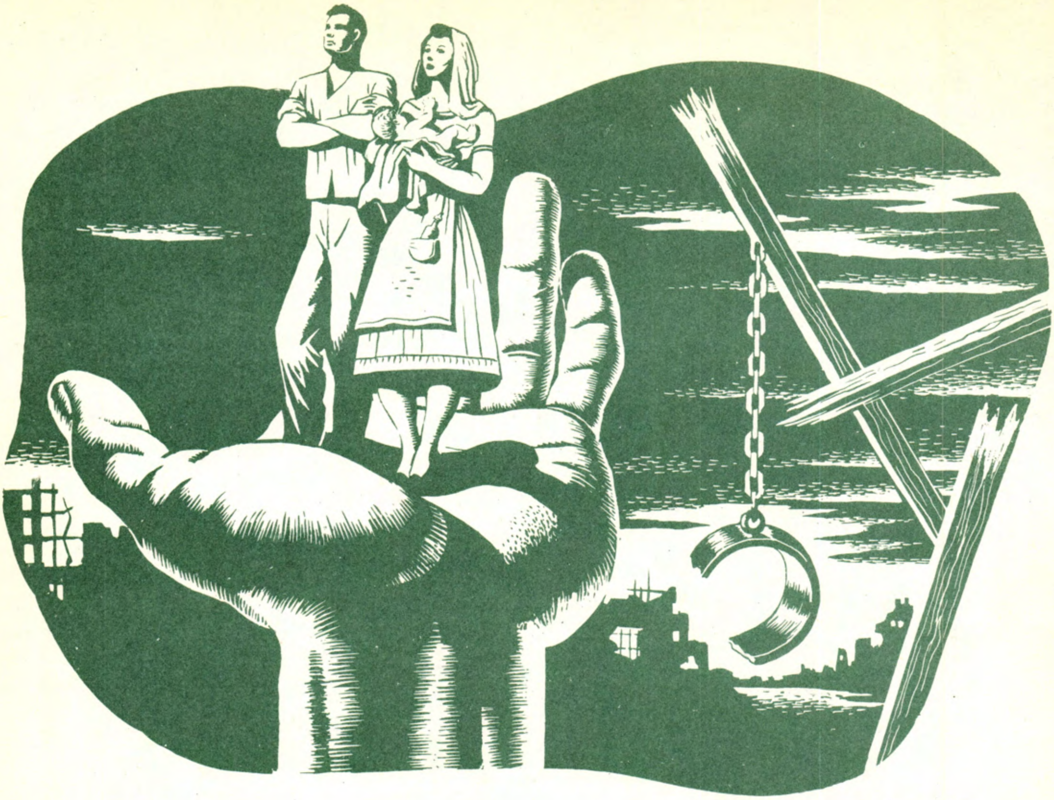
More Jobs Needed. New jobs are needed by the expanding population of the islands. The sugar industry, which formerly employed 53,000 persons, now uses only about 15,000 due to the mechanization of the whole process. A similar situation prevails in the pineapple industry, which, next to sugar, is the most important of island products. Tourism absorbs a high percentage of workers, and this seems likely to increase as jet-

AT A HUKILAU, or fishing party, Hawaiians and visitors enjoy drawing in a netful of fish, then cooking them on the beach in mounds of sand and hot rocks.

IOLANI PALACE, with statue of King Kamehameha, the Hawaiian monarch who in the early 19th century united the islands and brought law, order, and prosperity.

propelled flights from the mainland become more frequent.

In Honolulu and other large towns, mainland Americans feel very much at home among the friendly brown-skinned people. Even the tropical trees and plants are likely to remind them of Florida or California. There are American-type business buildings and hotels, well-kept parks and beautiful avenues, department stores, efficient police and fire departments. Woolworth's and Sears', cokes and hot-dogs, are all popular institutions. Whether these superficial attributes show that the Hawaiian islanders are ready for statehood is another matter.



MANY TYPES OF GOVERNMENT—headed by men of different backgrounds and abilities —are represented among the countries listed below. What the people of the world expect of their government is something very simple—it has been stated in many languages and in countries both slave and free. People want to have the dignity and worth of their persons respected, they want to live and work freely without fear and try to create a better world for their children.

Heads of State

AFGHANISTAN: King Mohammed Zahir Shah

ALBANIA: Chairman of the Presidium Maj. Gen. Haxhi Lleshi

ARGENTINA: Pres. Arturo Frondizi

AUSTRALIA: Prime Minister Robert Gordon Menzies

AUSTRIA: Pres. Adolf Schaerf

BELGIUM: King Baudouin I

BOLIVIA: Pres. Herman Siles Zuazo

BRAZIL: Pres. Juscelino Kubitschek

BULGARIA: Pres. of the Assembly Georgi Damianov

BURMA: Pres. U Win Maung

CAMBODIA: King Norodom Suramarit

CANADA: Prime Minister John Diefenbaker

CEYLON: Gov. Gen. Sir Oliver Goonetilleke

CHILE: Pres. Jorge Alessandri Rodriguez

CHINA: (Communist) Chairman of the People's Republic Mao Tse-tung. (Nationalist) Pres. Chiang Kai-shek

COLOMBIA: 5-man military junta

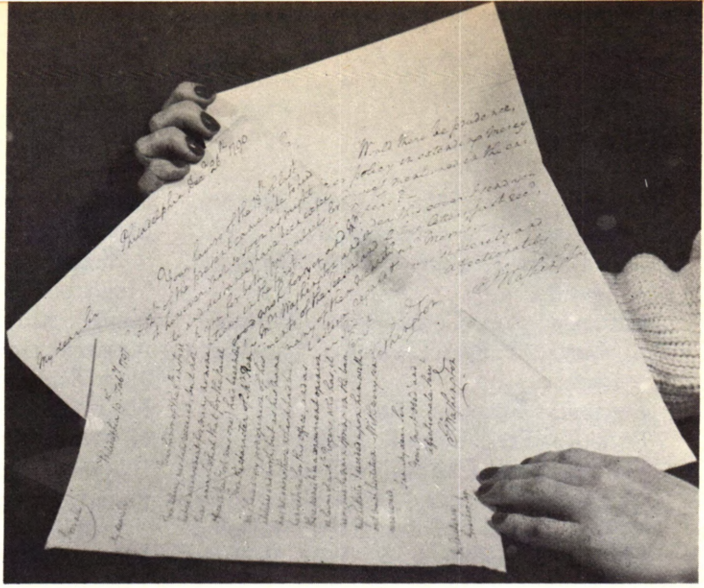
COSTA RICA: Pres. Jose Figueres

CUBA: Provisional Pres. Manuel Urrutia

CZECHOSLOVAKIA: Pres. Antonin Novotny
DENMARK: King Frederick IX
DOMINICAN REPUBLIC: Pres. Hector B. Trujillo
ECUADOR: Pres. Camilo Ponce Enriquez
EL SALVADOR: Pres. Lieut. Col. Jose Maria Lemus
ETHIOPIA: Emperor Haile Selassie
FINLAND: Pres. Urho K. Kekkonen
FRANCE: Pres. Charles de Gaulle
GERMANY: (Federal Republic, West) Pres. Theodor Heuss; (German Democratic Republic, East) Pres. Wilhelm Pieck
GHANA: Prime Minister Kwame Nkrumah
GREAT BRITAIN: Queen Elisabeth II; Prime Minister Harold Macmillan
GREECE: King Paul I
GUATEMALA: Pres. Miguel Ydigoras Fuentes
GUINEA: Prime Minister Sikou Toure
HAITI: Dr. Francois Duvalier
HONDURAS: Chief of State Jose Ramon Villeda Morales
HUNGARY: Chairman of Presidium Istvan M. Dobi
ICELAND: Pres. Asgeir Asgeirsson
INDIA: Pres. Rajendra Prasad
INDONESIA: Pres. Achmed Sukarno
IRAN: Shah Mohammed Reza Shah Pahlavi
IRAQ: Prime Minister Gen. Karim el Kassem
IRELAND: Pres. Sean T. O'Kelly
ISRAEL: Pres. Itzhak Ben Zvi
ITALY: Pres. Giovanni Gronchi
JAPAN: Emperor Hirohito
JORDAN: King Hussein Ibn Talal
KOREA: (Republic) Dr. Syngman Rhee; (People's Democratic Republic) Pres. Kim Du-bong
LAOS: King Somdet Prachao Sisavang Vong
LEBANON: Pres. Fuad Chehab
LIBERIA: Pres. Wm. S. Tubman
LIBYA: King Mohammed Idris el Senussi
MALAYA: King Abdul Rahman
MEXICO: Pres. Adolfo Lopez Mateos
MONGOLIA: Chairman of the Presidium Zhamsarangin Sambu
MOROCCO: King Mohammed V
NEPAL: King Mahendra Bir Bikram
NETHERLANDS: Queen Juliana
NEW ZEALAND: Prime Minister W. Nash
NICARAGUA: Pres. Col. Luis A. Somoza
NORWAY: King Olaf
PANAMA: Pres. Ernesto de la Guardia, Jr.
PAKISTAN: Prime Minister Gen. Mohammed Ayub Khan
PARAGUAY: Pres. Gen. Alfredo Stroessner
PERU: Pres. Dr. Manuel Prado y Urgarteche
PHILIPPINES: Pres. Carlos P. Garcia
POLAND: First Secretary Wladyslaw Gomulka
PORTUGAL: Pres. Gen. Francisco Higino Craveiro Lopes
RUMANIA: Chairman of the Presidium Dr. Petru Groza
RUSSIA: Pres. of the Presidium K. E. Vorshilov; First Secretary N. S. Kruschchev
SAUDI ARABIA: King Saud
SPAIN: General Francisco Franco
SUDAN: Prime Minister Gen. Ibrahim Abboud
SWEDEN: King Gustav VI
SWITZERLAND: Pres. Paul Chaudet
THAILAND: King Bhumibol Adulyadej
TUNISIA: Pres. Habib Bourguiba
TURKEY: Pres. Celal Bayar
UNION OF SOUTH AFRICA: Prime Minister Dr. Hendrik Verwoerd
UNITED ARAB REPUBLIC: (Egypt and Syria) Pres. Gamal Abdel Nasser
UNITED STATES OF AMERICA: Pres. Dwight D. Eisenhower
VENEZUELA: Pres. Romulo Betancourt
VIETNAM: Pres. and Prime Minister Ngo-dinh-Diem
YEMEN: King Imam Ahmad
YUGOSLAVIA: Pres. Josip Broz-Tito

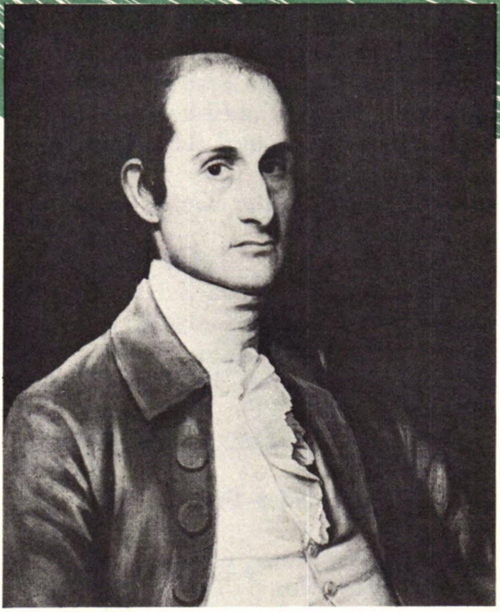
(The heads of the following principalities and satellites have been omitted from this listing: Ukraine, Byelorussia, San Marino, Monaco, Luxembourg.)

THREE unknown Washington letters were in the collection of nearly 2,000 John Jay papers recently acquired by Columbia University at a cost of $75,000. Among them were original manuscripts of *The Federalist*.

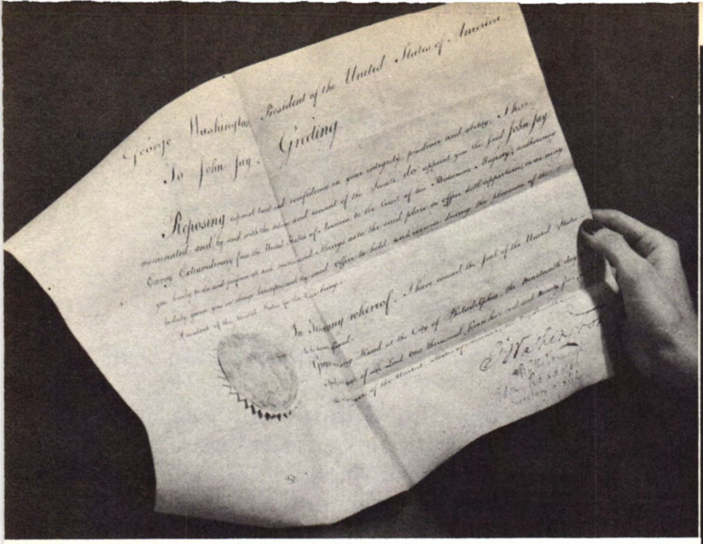


HISTORIC

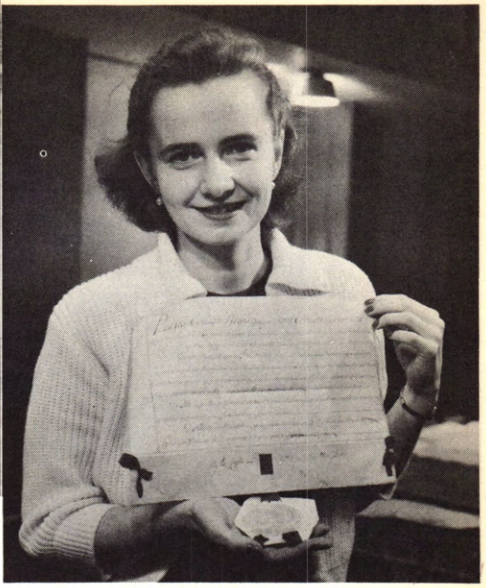
AMERICAN UNIVERSITIES acquire important documents and letters relating to a Founding Father and an Austrian monk.



PORTRAIT OF JOHN JAY, first Chief Justice of the United States. Jay was a Columbia (then King's College) graduate, class of 1764.

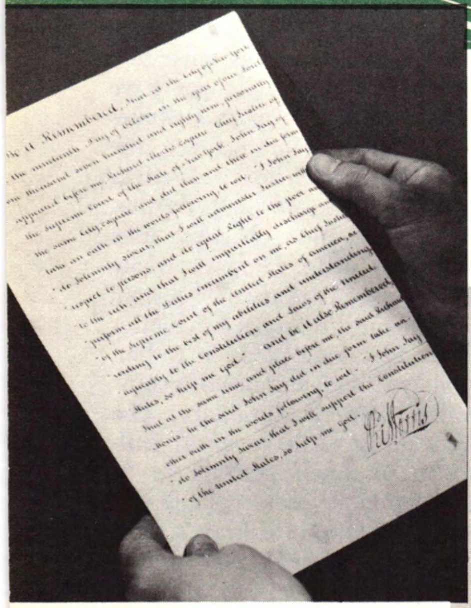


A COMMISSION, signed by George Washington, appointing John Jay as envoy to Great Britain. The papers have been continuously in the hands of Jay's descendants until the present.



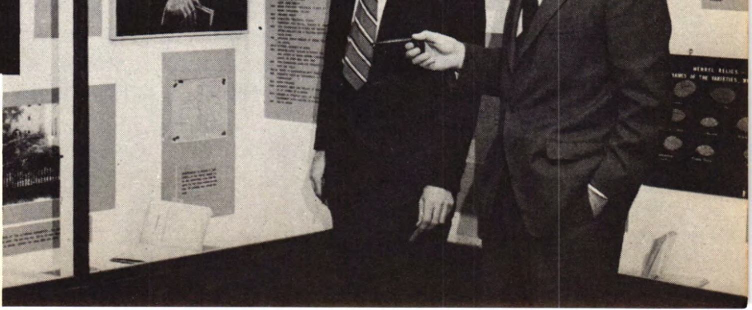
A DIPLOMA granting Jay a master's degree is held by one of Columbia University's libraries. A wooden seal is attached to the diploma.

TREASURES



OATH OF OFFICE as Chief Justice, signed by Richard Morris, from the Jay collection.

THE UNIVERSITY OF ILLINOIS has acquired what are probably the only remaining letters, photographs, and personal papers of Gregor Mendel, father of the science of genetics. Here Prof. Marcus M. Rhoades (right) points out items in the Mendel collection to Prof. D. F. Hoffmeister, curator of the Natural History Museum.



INDIA

Land of Contrasts. India is a land of the most bizarre contrasts. At the top level of government are a group of brilliant, well-educated intellectuals, yet India has the highest rate of illiteracy of any country that records such statistics.

India's civilization is one of the oldest and richest, yet today the country is at the bottom of the economic ladder, with an annual per capita income of less than $60.

Rural India has an urgent need for teachers and technicians, yet thousands of young Indian college graduates drift about jobless in the larger towns.

India is an agricultural country where malnutrition, starvation, and beggary are very prevalent.

India's constitution is modern and democratic, but the persistence of the ancient caste system hinders its functioning.

Indians are gentle and seemingly passive, but underneath the smiles lurk astonishing depths of violence.

In India, dams, ditches, and roads are often built by women in flowing draperies carrying dirt in baskets on their heads, yet this backward country is today dreaming in terms of atomic energy and great hydroelectric plants. One could go on with this list of contradictory aspects in the life of present-day India. It is a country on the move—and moving in the right direction: toward bettering the life of its people.

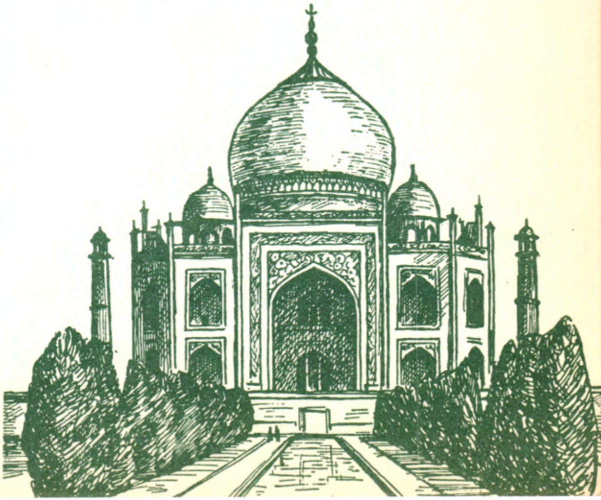
Awakening Giant. India has been called a giant stirring after centuries of sleep. Here a population of 360 million—more than twice that of the United States—is being aroused to action. Climatic factors, colonialism, poor nutrition, and disease have all combined to deprive the people of initiative. A contemplative religion has also contributed to their lack of what Westerners call progress. It takes time to overcome handicaps, and also for the needs which seem so urgent to outsiders with different standards to become needs felt by the people themselves. In spite of the leaders' desire to quicken the process of change, Nehru's policy—like that of Gandhi before him—has been to win people by persuasion. This requires patience—and talk. During the years of his leadership Nehru has probably made more public speeches than any other half dozen statesmen. Radical changes have had to be made in the people's attitudes and feelings. There is, for instance, the immemorial peasant custom of using cow-dung for fuel instead of to fertilize the fields. Allowing cows—because they are sacred animals—to rampage freely through growing crops is another custom which keeps down the land's productivity. The changes taking place in Indian life are moderate and piecemeal, evolutionary rather than revolutionary. The most difficult decisions have to do with priority: with so much needing to be done, what should be tackled first?

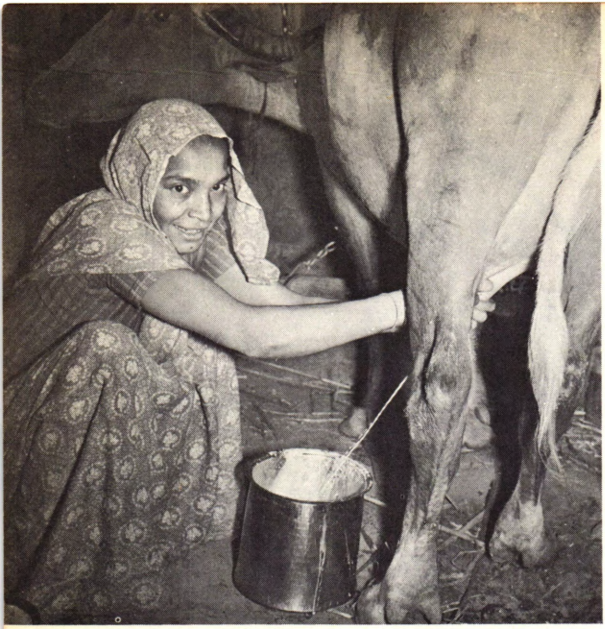
Democratic Constitution. India's form of government is that of the United States, a federal republic. Its constitution declares that the purpose of its gov-

MANY CENTURIES OLD is the Golden Temple at Amritsar, in northern India, center of the Sikh religion. The dome of the temple is of copper and gold. In the foreground is the "pool of immortality."

ernment is to ensure its citizens of an adequate means of livelihood; to prevent concentration of wealth and means of production; and to ensure the distribution of ownership and control of the material resources of the community as best to serve the common good. To implement these principles, a Planning Commission was set up soon after India won its independence from Great Britain.

India has a mixed economy, part so-





VILLAGE WOMAN, near Anand, India, milks her buffalo. With help from UNICEF and a local milk producers' co-operative, a large milk products plant has been set up at Anand. It is the first successfully to produce dried buffalo milk, which is distributed free to the children of the area.

cialistic, part capitalistic. The government operates railroads, airlines, telephone and postal services, public utilities, water supply system, and some industries. This semi-socialistic pattern is not rooted in doctrine or dogma, but is dictated by certain customs, dating from British rule, and certain practical considerations. The state operates where there is existing machinery and personnel, and also initiates developments which private industry is unwilling or unable to undertake. In both public and private sectors of the economy there is great need for managerial experience and technical skills. Lack of effective manpower has slowed the execution of many plans.

Another problem has been that of communication. With hundreds of different dialects, as well as several major languages in use, it has been difficult to organize administration and to set up a system of universal and compulsory education.

Plans and Projects. India's first five-year plan, running from 1951 to 1956, was moderately successful. In spite of language barriers, the people were thoroughly informed of the plan and responded with enthusiasm. Increased agricultural production had high priority. This meant soil improvement, greater use and distribution of simple farm tools; the building of wells, cisterns, and simple irrigation systems—with one well to irrigate three to five acres.

While these improvements were being carried out, the hold of absentee landlords was being broken. The land comprising more than 600 principalities was distributed among the peasants. These estates were not appropriated, but purchased by the government or given freely by their owners, often in response to Vinoba Bhave's land-giving campaign.

The first plan also set goals in transport and communication, industry, mining, and social services, including health education. Thus the plan represented broad advances on many fronts. It appears to have increased total national income by about 13 per cent in the five years, an excellent record. This period covered the darkest time of India's history: the setting up of the state of Pakistan, and the mass migration and mass bloodshed which the partition caused.

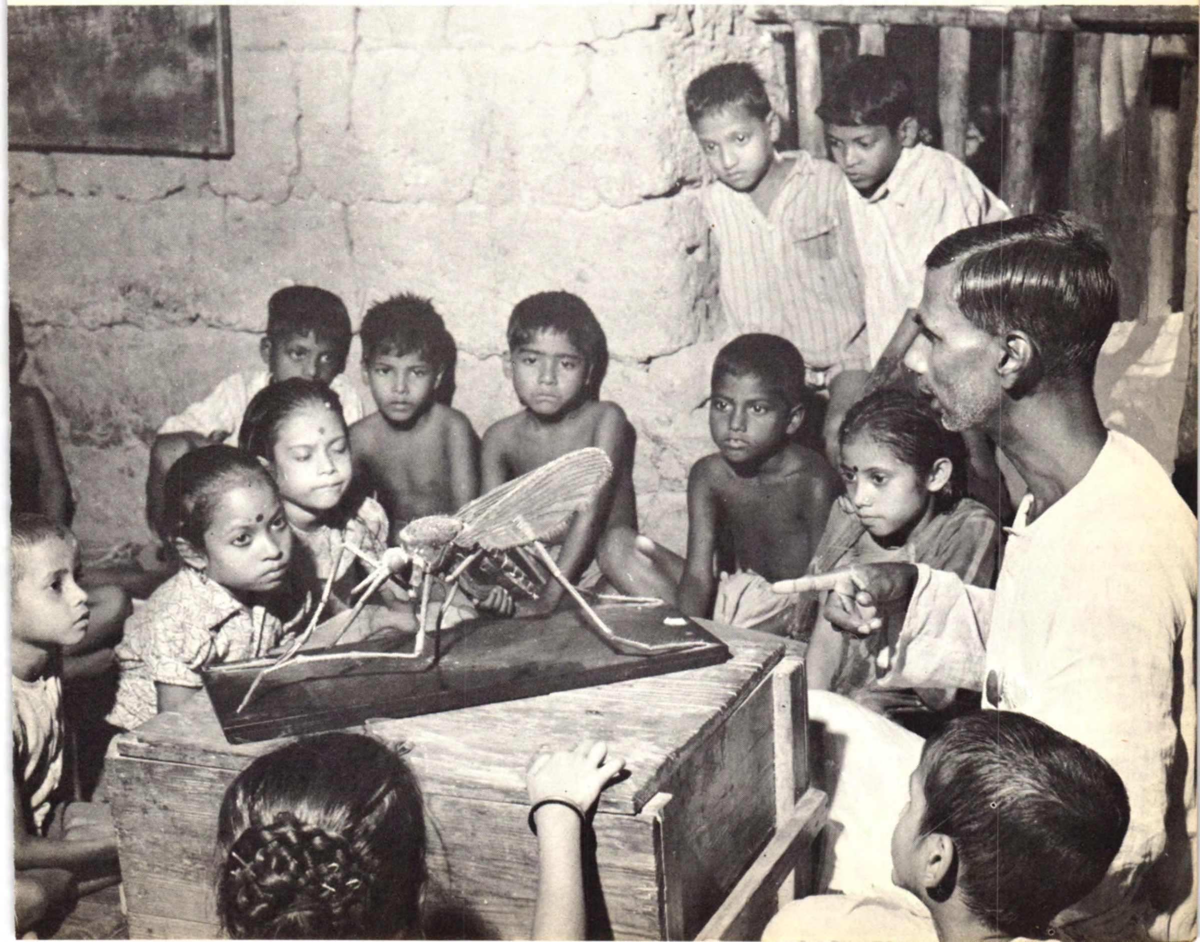
Second Plan. For the second five-year plan, to extend from 1956 to 1961, high goals were set—too high, as events proved. Many of the ambitious industrial projects have been dropped or postponed. From 65 to 75 per cent of the expansion was to be in the hands of private industry. The heart of the program was steel production, involving the completion of three government-owned steel plants and the expansion of three private mills. India has abundant reserves of iron ore, manganese, and coking coal. Tata Iron and Steel Company, the country's greatest producer, has received foreign loans to pay for some expansion. In 1955-56, In-

dia's finished steel production amounted to but seven pounds per capita, in contrast to 1300 pounds per capita for the United States, and 36 pounds for Mexico.

A beginning is being made in the use of India's great rivers—the Ganges, Indus, and Brahmaputra—as sources of power. India-Pakistan plans for joint development of the Indus River basin are going forward. India's minerals are also a source of wealth waiting to be developed. Experts say that India has at least 75 sites for chemical and metallurgical industries.

Village Industry. The second plan also stressed agricultural and community development. Four fifths of India's inhabitants live in primitive villages consisting of mud huts clustered near a well, surrounded by small farm holdings. The villagers have existed thus for centuries in poverty and inertia. Of those above 10 years of age, 82 per cent are illiterate. The percentage of illiteracy among the women is even higher. As teaching devices, the government sends out moving pictures to illustrate the digging of a cistern, the building of an irrigation ditch, and procedures having to do with health and sanitation. The use of better seed and fertilizer has increased production. The government helps the peasants buy spades, wheelbarrows, pipe, and cement for irrigation ditches where necessary. Ricefields are being planted in the more efficient Japanese manner. The people are beginning to use coal briquettes instead of dung for fuel in certain areas. Such village industries as weaving, leath-

INDIAN CHILDREN in a schoolroom of the Himalayan region learn how to combat a deadly enemy, the malaria mosquito.



er work, and pottery have also been stimulated. A U. S.-designed power unit for the production of village electricity by a bullock-operated pump went into operation near New Delhi, during the summer.

Harijans. India's untouchables formerly did the work considered unsuitable for higher-born persons—scavenging, sweeping, cobbling, and handling carcasses of animals. Ever since independence India has been trying to bring these 50,000,000 back into a society that had cast them out and condemned them to live lives of physical and spiritual degradation. Gandhi gave the untouchables a new name, calling them "harijans," children of God, and by his teaching and example tried to better their lot.

The caste system itself was wiped out by India's new constitution. Other efforts to rehabilitate the harijans included setting aside a certain number of seats in parliament for them, as well as a percentage of civil service jobs, and providing a certain number of scholarships for the higher education of their chidren. This type of special legislation has had the

INDIAN VILLAGERS have recently been taught how to make soap from native vegetable oils. This is part of a program in fundamental education, which includes practical techniques for healthier living.

THE WILL TO LEARN is there, even though the children of India are handicapped by shortages of equipment and teachers.

effect, in some cases, of perpetuating their segregation. At the government schools, special hostels were set up for harijans; now these hostels must accept at least ten per cent of non-harijans.

The laws and rules of the past decade cannot eradicate the customs of thousands of years. In many parts of India, the untouchables still live in mud hovels, apart from other villagers, unable even to obtain a drink of water from a well not assigned to their use. That progress is being made is evidenced by the fact that one member of Nehru's cabinet, Jagjivan Ram, the minister of transport and communication, was born an untouchable. Harijans are awakening politically and often hold the balance of power in local politics.

Foreign Relations. India has been criticized in the United States for maintaining neutrality in the East-West cold war, for accepting aid from both sides. From India's point of view this policy is not only rational but right. Nehru is determined to keep his country politically independent and uninfluenced by the various aid programs. This position of neutrality has left India free to play the useful role of mediator on more than one occasion in the United Nations and elsewhere. Thanks to Nehru's leadership, the creation of the new state was carried off without hatred and bitterness between India and Great Britain. These good relations have continued save when India registered strong disapproval of the invasion of Suez. Most of India's leaders were educated in England, and their long-established friendships have been maintained.

Congress Party. Nehru's Congress

Party is still in control but there is weakness and division and even corruption in the leadership. Nehru, now 69, has carried an extremely heavy load through the years. He is prime minister, foreign minister, head of the Congress Party, and chairman of both the Planning Commission and the Atomic Energy Commission. He has been a tremendous unifying force. Some persons think he should give up some of these duties and devote himself to building up his party. Nehru would like to step down, and spent several months of 1958 in retirement. It has been charged that his tremendous prestige and dynamic personality have checked independent thinking on the part of younger men. Among today's group of government leaders, the younger men and women do not seem to be moving to the front. Women, however, are playing a surprisingly large part in Indian affairs.

Communist Kerala. In spite of Nehru's desire to keep Communism at bay, the small state of Kerala, at the southwest tip of India, voted in a Communist government in the general election of April, 1957. From several points of view, Kerala is an interesting state. There is an old tradition that St. Thomas the Apostle found his way to this coast nearly two thousand years ago, and here established one of the world's oldest Christian churches. St. Frances Xavier, who had first labored in Goa, to the north, came to Kerala (formerly called Travancore-Cochin) in 1542, and converted many of the natives. To this day, Kerala's population is 25 per cent Christian. The large number of Christian schools of many denominations accounts for the fact that Kerala has the highest literacy rate of any Indian state. It has the highest density of population as well, with 974 persons to the square mile. This rich land produces many items for foreign export, including 56 per cent of India's tea and 96 per cent of its rubber. Kerala holds a virtual monopoly on the export of pepper and cashew nuts. Offshore the sea abounds in sardines, tuna, and many varieties of tropical fish. Inland there are forests of ebony, teak, and blackwood.

In spite of the opulence of its resources, and its high degree of literacy, Kerala's thirteen and a half million people remained poor, with a low standard of living even for India. Various parties had been in control of the government, including the Congress Party and the Socialists, without making any marked improvements. Then in 1957, with a minority of the popular vote, enough Communist representatives were elected to the state legislature to give the party a majority of two votes.

Striving for Change. Between now and the election of 1961, the Communists will use Kerala as a sort of proving ground, and will try to chalk up many advances. They would like to expropriate the big foreign-owned plantations, but are prevented by law from doing so, and the central government at New Delhi refuses to pay for their purchase. The estates, however, are being heavily taxed. The state is trying also to distribute 400,000 acres of public land to landless peasants, and to organize communes and cooperatives among fishermen, farmers, and mat-workers. Control of the elementary schools which are run by Christian missions is sought. There are 2,000 of these, out of a total of 6,000. So far reforms are being carried out within constitutional limits.

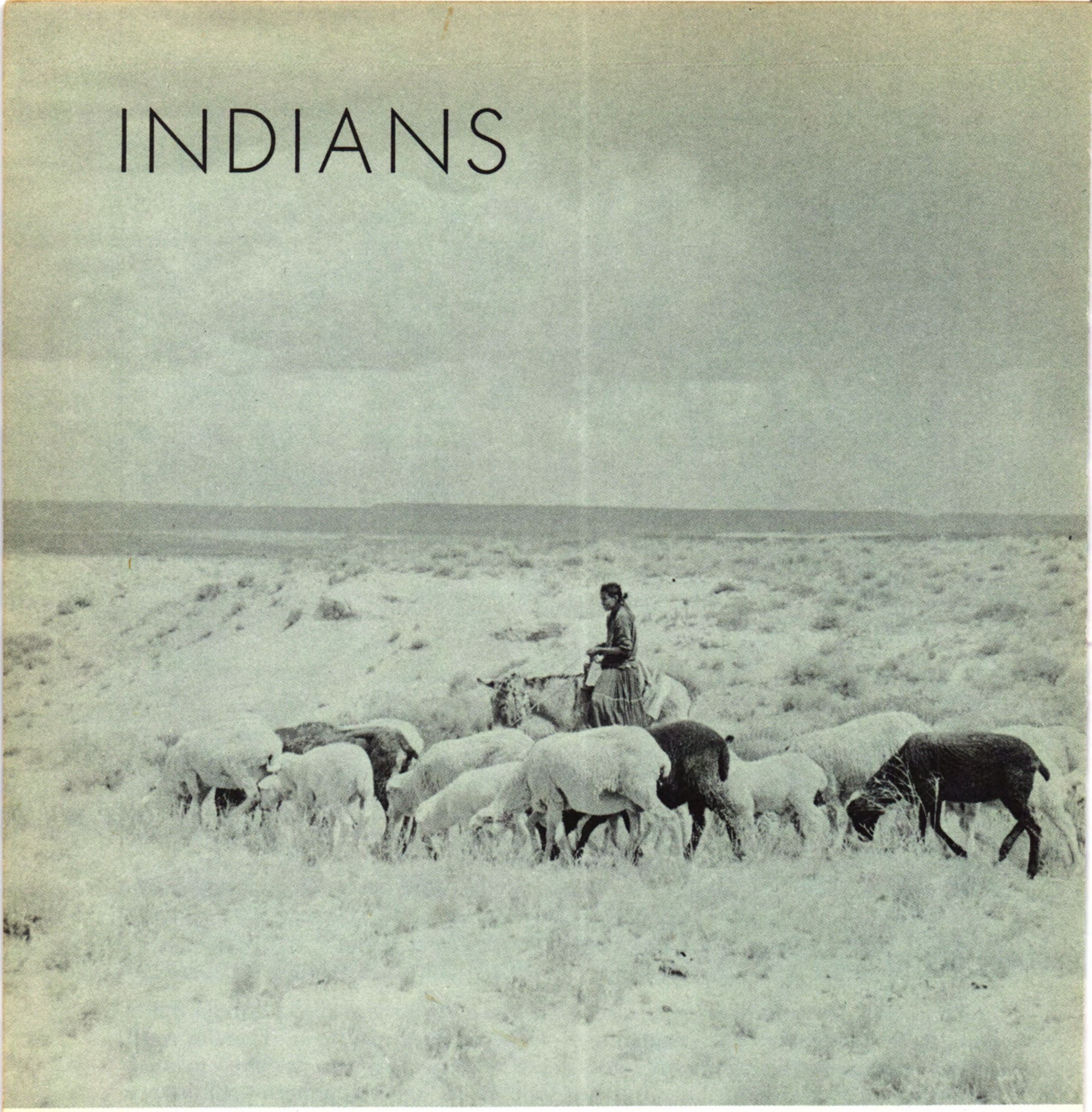
The chief minister in Kerala is a 49-year-old Indian, born into the Brahmin caste, who has given a large part of his personal fortune to the Communist party. Elamulam Mana Sankaran Namboodiripad has a reputation for integrity from which his administration benefits. Whereas bribery and corruption in public office have been routine, the new Kerala government seems to be run with propriety.

THE WOODEN PLOW is still widely used in India. Here a power plow cuts through kana grass to clear the land for a reclamation project.

Communism here is unlike Soviet Communism in some ways. The people may strike and demonstrate against the government, and indeed have done so. The United States Information Agency runs a popular center in the heart of the capital, Trivandrum, near the Communist headquarters.

United States and India. India has made such a late start toward developing an industrial economy that it must work hard and accept foreign help or allow the fine plans to fail. It has been the policy of the United States to invest in India, giving aid in various forms—technical assistance, loans, grants, and outright gifts of surplus foodstuffs. In 1958, India's finance minister visited the United States to negotiate a new loan. There is some doubt about the country's ability to break out of its age-old pattern—subsistence living, mechanical backwardness, and overpopulation. Nevertheless, the Eisenhower administration decided to help India with its second five-year plan by a $150 million loan. India will also receive money or credits from the Soviet Union, from the World Bank, and from the Colombo Plan, sponsored by the British Commonwealth, and from the Soviet Union. The U.S.S.R. has given considerably less than the United States in the past, but has accompanied its aid with more fanfare.

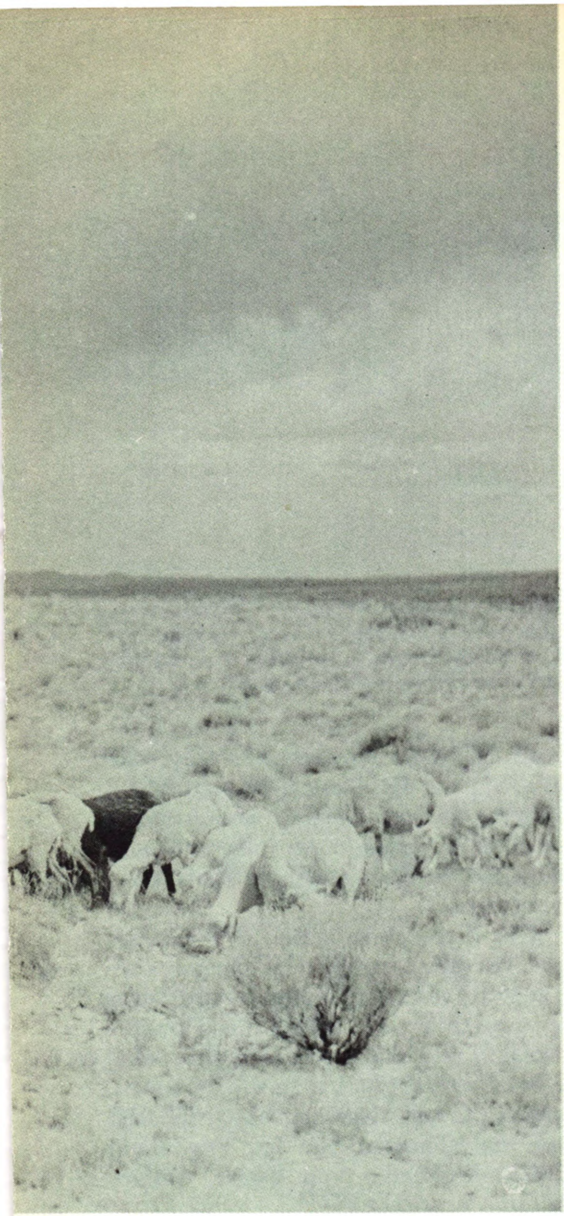
INDIANS



NAVAHO SHEPHERDESS and her flock, near Chin Lee, Arizona.

To Go or Not to Go. A perpetual problem of the United States is its relationship to its long-time wards, the Indians. Scattered over about twenty states in 225 tribal groups, the Indians today have a very specific problem of their own—whether to continue to live on the reservations, in the old tribal way, whatever the hardships, or leave to become absorbed, or simply lost, in the mainstream of American life. There is, it is true, still another solution, a compromise between the others: to hold on to the tribe, but to seek employment off the reservation for limited periods. This means living in two worlds, and not being completely at home in either. Whatever the individual Indian's choice may be, it is no easy one.

The governmental agency responsible



for Indian welfare is the Bureau of Indian Affairs, in the Department of the Interior. It would like to terminate gradually the wardship or trust, and there have been many steps taken toward this end. Without full protection of the Indians' water rights and land titles, termination would spell disaster. Therefore the Bureau is moving cautiously and slowly.

An unofficial group, the American Association of Indian Affairs, is very active in supporting Indian causes and claims. It does not want to see the Indians lose their cultural heritage and become like everybody else, through outside pressures. Still less does it want to see the Indians and their properties exploited by greedy commercial interests. This group is often critical of the Indian Bureau's policies.

In recent years the Indians have produced native leaders of real stature. The various tribes are working through their National Congress of American Indians, an organization with headquarters in Washington. They are hiring legal counsel, economic advisers, learning to lobby, and how to drive sharp deals in leasing or selling their land. A group of Indians last year made a study trip to Puerto Rico, to gather information for their own use from "Operation Bootstrap," an over-all economic plan. In short, the Indians are developing necessary techniques for survival in the white man's world.

Reservations. The treaties and laws that govern reservation Indians form a confusing web, woven over more than a hundred and fifty years. Originally the reservations were concentration camps where the then warlike Indians were herded by U. S. soldiers and civilians. Later these enclosures, along with many additional areas, were set off as tax-free land to be permanently owned by the various Indian tribes—with permission to sell if they so desired. Some 370 separate treaties were involved. At present more than half the original 130,000,000 acres allocated by the government has been disposed of. In most cases, the tribes have voluntarily sold off portions of their land. In other cases it has been taken from them—expropriated by state or Federal government for highways, power developments, and other public projects, just as these agencies have expropriated the land of white citizens. The Indians are also permitted to lease their lands,

CHIEF OF THE SENECAS, Cornelius S. Seneca, visits the National Archives in Washington, to examine the treaty of 1794, guaranteeing the tribe undisturbed use of its land. In 1958, the U. S. Court of Appeals upheld the Government's right to construct a dam that would flood a part of the Seneca reservation, including arable land.

with the approval of the Secretary of the Interior.

The Bureau of Indian Affairs administered the reservations, except in Virginia, Maine, Texas, and New York, where state agencies have this responsibility. In all cases, however, the Federal government pays the states for any services they provide the Indians, such as education and institutional care.

Most of the 300 reservations are west of the Mississippi. They range from a few hundred acres to the 15-million-acre Navaho reservation, which covers parts of Arizona, Utah, and New Mexico.

In general, the land is owned communally. Some tribes have become wealthy through the discovery of valuable minerals and oil on reservation land. The Osages became millionaires almost overnight when oil was discovered. The Navaho land proved to be rich in uranium, vanadium, and other minerals. In 1957 they received $1,250,000 by leasing these properties. They have also leased large areas to oil companies. The millions in royalties have to be divided up among some 80,000 Navahos, for this tribe has increased rapidly in numbers in recent years. Thus the prosperity is only relative. But the development of natural resources on Indian lands is important, because it means new jobs and new skills for the Indians employed in these enterprises.

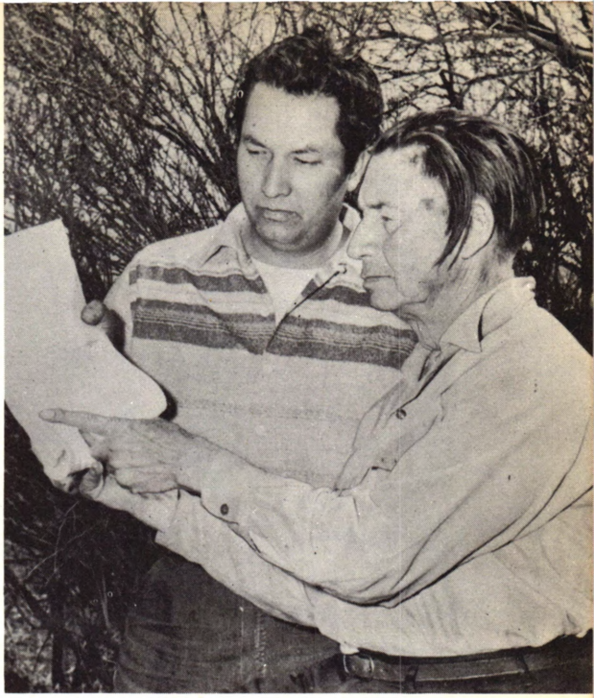
The Menominee tribe of Wisconsin and the Klamath tribe of Oregon own stands of valuable timber. Timber sales or the leasing of timber lands by the Klamath Indians have made this small tribe affluent. In fact, each Klamath man, woman, and child is worth about $50,000, but the Klamaths number only about 2,000 out of more than 400,000 Indians in the country.

In the Main, Poverty Prevails. The rich Indian tribe is the exception. Most tribes live in poverty, and, it must be admitted, in ignorance. The bulk of reservation land, especially in the Southwest, is arid, sparsely forested, suitable for grazing, and most of it not even suitable for that purpose. One recent Navaho project was to try to provide a well within *five miles* of every hogan or house.

In general, reservation lands are unsuitable for industry, although efforts are being made to attract small industries in

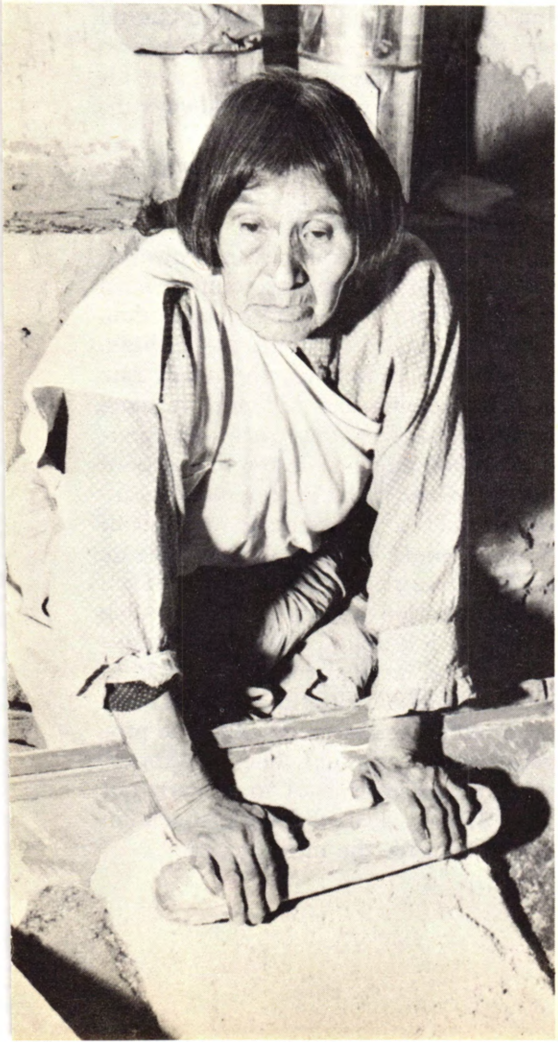
which Indians could work. Several tribes of the Southwest have solved their economic problem to some extent by developing native crafts, and selling their baskets, pottery, blankets, jewelry, and leatherwork through commercial outlets and to tourists.

Education. Most adult Indians living on reservations cannot read or write. In the past many have refused to learn but today there is a growing interest in education, and this interest is being met through existing school facilities. Special adult education projects are under way among the Seminoles, Papagos, Sioux, and some other tribes. Elementary schooling is provided for most Indian children, but long distances between home and school, illness in the family, bad weather, and poor roads often prevent their taking full advantage of the opportunities offered. Some schools even have a working P.T.A.—commonly known as "Peetie-A Clan." Most Indian young people ambitious for education beyond the elementary level go to high school off the reservation. During the past year, 432 Indian high school students won college scholarships in competition with other students. The number of Indian young men and women now in college is 3,800 —a 65 per cent increase in three years. College tuition is, in most cases, paid by the tribes, many of which have set up educational trust funds. Sometimes, it is a loan for the first two years, and a scholarship for the final two—if the student does exceptionally well. Many college-trained Indians plan to return to their tribe, to teach, or serve as nurses or doctors. While tribal leadership varies a good deal, in general, it has come to be



CHIEF ELTON GREENE, chairman of the 14-chief council that administers the affairs of the Tuscaroras.

ZUNI WOMEN still grind their corn in a metate.



YOUNG HOPI, at school in Oraibi, Arizona, is obviously going to become a serious student.

very respectful of white man's education.

Relocation. Individual Indians have been allowed to move about freely and live off their reservation if they chose, and if they could find work. In 1951, a relocation program was created by the Bureau of Indian Affairs, as part of the government's over-all policy, to stimulate the movement away from the reservation. Relocation centers were set up in Los Angeles, Chicago, Denver, and several other cities. The aim was to find jobs, arrange for job training, secure living quarters, and help the Indians through the period of adjustment. Many Indians have been successfully assimilated. There is no question of their ability to learn complex skills. They are stable workers and good citizens. A few of them have returned to their reservation, more or less disillusioned. On many there is no information, as they have drifted out of touch with the agency and their community group. As latecomers to the labor market, they would probably be the first to lose their jobs in a recession. It is too early to generalize about the relocation program. Certainly the drift away from the reservations is continuing at the rate of several thousand persons a year. The hold the tribe has on its members varies a good deal, but for many the reservation will always be "home."

NAVAHO WOMEN still spin the wool which will be woven into blankets.

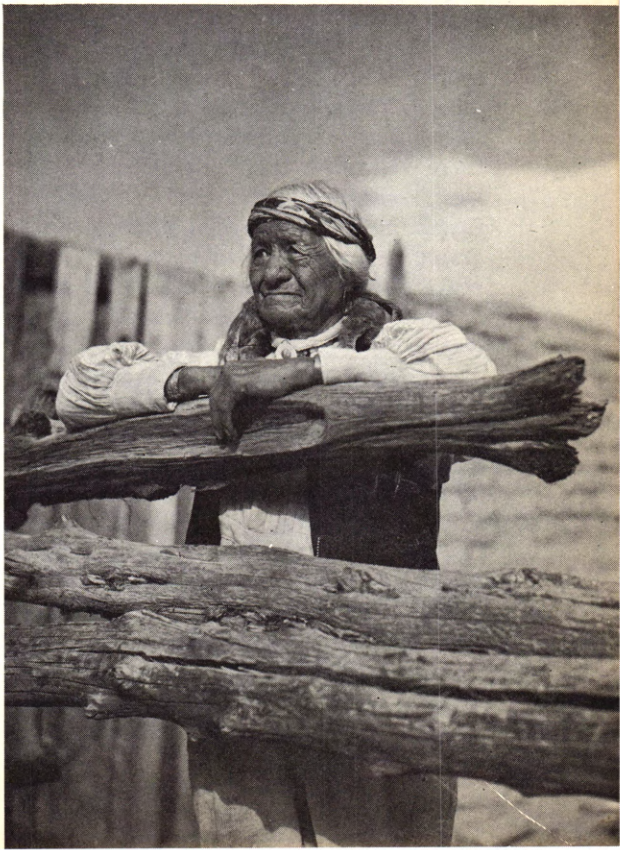
Health. American Indians may be paupers or millionaires, scholars or illiterates—just like white Americans. In the matter of general health, however, statistics show that Indians compare most unfavorably with the white population. Their disease and mortality rate is high. For reservation Indians, the death rate from pneumonia and influenza is more than five times as great as for the general population. The average length of life of Indians living on reservations according to recent figures, is only about 36 years, some 26 years below the rate for the entire population of the country.

This situation was mainly responsible for the U. S. Public Health Service taking over the medical care of reservation Indians in 1955. Hospitals, clinics, and nursing services are included in the program launched at that time, but appropriations are insufficient to carry it out fully. A good deal of health education goes along with the medical care.

NAVAHO GROUP entering a typical hogan near Lukachuka, Arizona.

Indians Versus Klan. It's almost a case of man bites dog when an Indian passes sentence on white men. But it happened in North Carolina. The Lumbee Indians, numbering 30,000, make up a large part of the population of Robeson County, in that state. There, in January, a band of some 200 Indians broke up a rally of the Ku Klux Klan, in anger over reports that the Klan's burning of fiery crosses was intended as a warning to them to stay "in their place."

Later, it was an Indian judge who presided over the court where two of the trouble-making Klansmen were tried. Before giving them a brief jail sentence, the Indian made a few appropriate remarks on brotherhood and democracy.

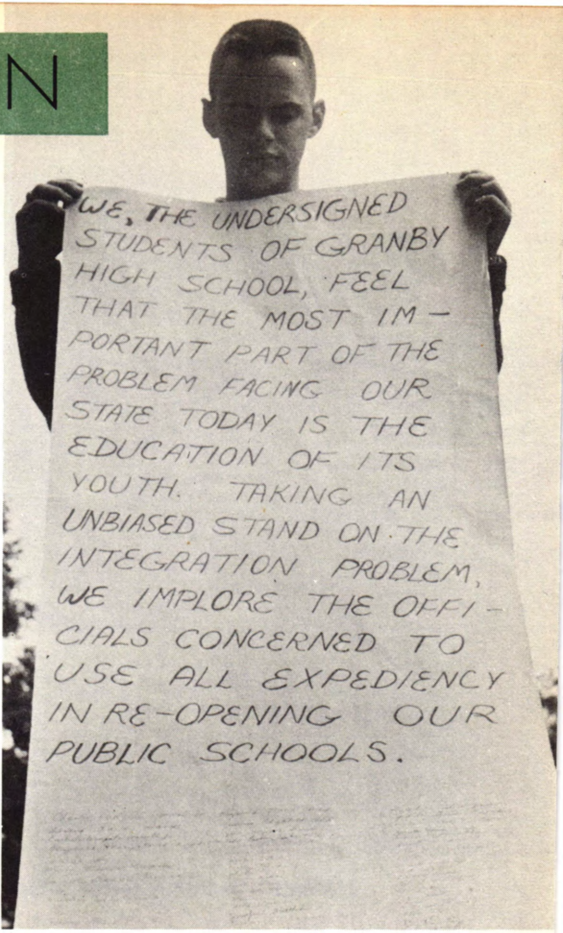


A PUEBLO INDIAN of Santa Clara Pueblo, New Mexico, where beautiful black pottery is made.

INTEGRATION

Snail's Pace. Four and a half years after the Supreme Court's decision, movement toward further integration in the nation's schools continued to be slow and irregular. In the 1958 session of Congress, strong civil rights legislation was considered, with the aim of speeding integration, but Congress failed to act. Sen. Paul Douglas (Dem., Ill.) who with 13 representatives and 16 senators, urged such legislation, was of the opinion that without it time would work against integration. At the end of the year, 17 states had passed nearly 200 measures whose aim was to make the Supreme Court ruling ineffective, in spite of the Court's warning against "evasive schemes."

Some Compliance. School integration was going forward nearly everywhere in West Virginia. A white coal miner of this state expressed himself thus: "We work with Negroes in the mine. We see no reason why our children should not go to school with their children." Kentucky, another border state, reported that 70 per cent of its 170 bi-racial school districts were integrated or planning to integrate. In Maryland, more than one-fourth of all school districts had complied, although there was still delay in the southern counties. In North Carolina, there was a little token compliance in the west, resistance in the east. With 222 of Oklahoma's 271 bi-racial districts integrated, the rest seemed to be following peacefully. In western Texas, 123 districts had integrated, but in Dallas integration was postponed for a year. Nashville, Tenn., on a "grade a year" plan, had desegregated its first and second grades. Missouri had the highest record of any Southern state, with its schools more than 95 per cent integrated. The massive resistance of Mississippi, Florida, Alabama, Georgia, Louisiana, and South Carolina showed no sign of crumbling. Some excellent new schools for Negroes have been opened in those states.



CHICK SPENCER, president of student government at Granby High School, Norfolk, Virginia, holds up a petition urging reopening of public high schools.

Again Little Rock. Little Rock, Ark., scene of 1957's tragic happenings, was again much in the news. Federal Judge Harry J. Lemley ruled that the Little Rock school board could postpone integration for two and a half years. This had local support, even from some integrationists who thought that with the passage of time antagonisms would cool. The stay was reversed by the U. S. Court of Appeals. A section of the majority opinion declared: "The time has not yet come when an order of a Federal court must be whittled away, watered down, or shamefully withdrawn in the face of violence and unlawful acts of individual citizens and opposition thereto."

MINNIJEAN BROWN, expelled last year from Little Rock Central High School, was invited to enroll at the New Lincoln School, a private institution in New York. Here she is shown with teacher and fellow students.

Governor Faubus, confident after his re-election, defied this decision and ordered Little Rock high schools to reopen on an all-white basis. The Supreme Court barred integration delay, and Faubus closed the schools. They have remained closed.

In Jefferson's State. Virginia's governor, J. L. Almond, Jr., brought his state into equal prominence with Arkansas in his defiance of court orders to desegregate certain schools in Norfolk, Charlottesville, and Warren County.

Millions of Southern citizens have been misinformed by their leaders into thinking that the 14th Amendment to the Constitution was invalid, and that state laws took precedence over Federal. They are gradually learning the truth.

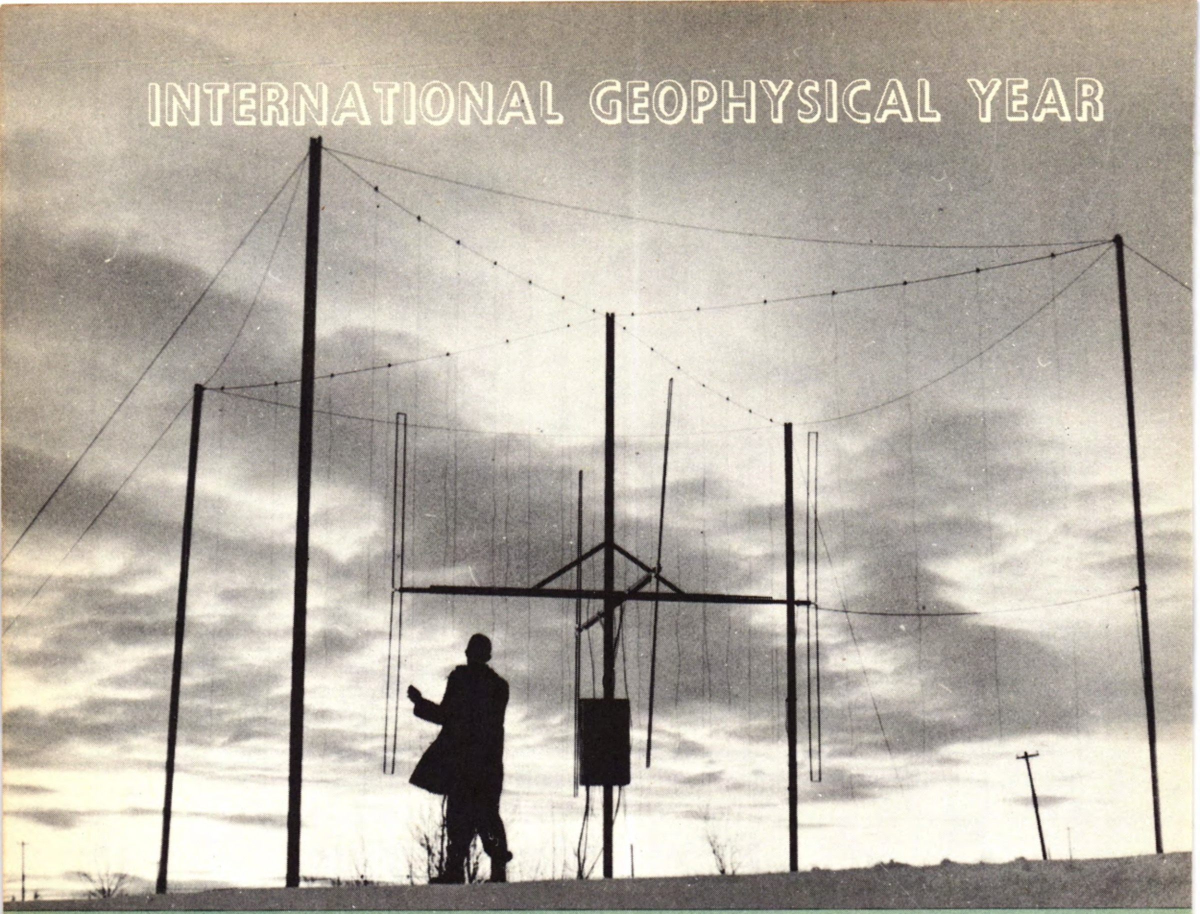
In both Arkansas and Virginia various plans for private schools have been talked about or tried, and some of these were carrying on at the end of the year. Lack of qualified teachers, lack of buildings, equipment, and money make such ventures unsatisfactory. Some students were being sent to other communities, others were receiving private tutoring, many thousands were deprived of any schooling.

Most of the teachers involved in the school closings were under contract and were being paid. In some cases they have protested the closings and refused to teach in the makeshift schools.

There were rumblings from parents. While many of them disapproved of integration, if the choice was between integrated schools and no schools they preferred the former.

A Million Days Lost. Arthur S. Flemming, Secretary of Health, Education, and Welfare, assailed the closing of schools in Little Rock and Virginia, declaring that "immeasurable social, economic, and psychological harm" was being done to children, to teachers, and the community. About 16,400 pupils had already missed a total of nearly a million school days.

INTERNATIONAL GEOPHYSICAL YEAR



RECEIVING ANTENNAE for auroral radar station, one of many strung out across Canada, and part of the most elaborate study ever undertaken of the aurora borealis. This is part of Canada's contribution to the International Geophysical Year.

World Co-operation. The greatest scientific enterprise ever undertaken, the International Geophysical Year, began in July, 1957, and continued to the end of 1958. For half a dozen years before the start, committees had been at work preparing for it — outlining objectives, finding proper sites and equipment, and scientific teams to carry out the projects. More than 6,000 scientists and the governments of 67 nations have been involved. To gain an idea of the complexity of the whole operation, one must imagine groups of men and women of all races working at more than 2,000 scientific stations throughout the world. Some of the projects have been full of peril, some may have been unexciting; all have required specialized skills and techniques —and a love of knowledge.

A world map of IGY activities shows the most surprising and diverse projects and devices: radio wave study of the ionosphere, geomagnetic stations, radiation study, gravity study, telescope for cosmic rays, meteorological stations, earthquake study, oceanography study.

The final result will be more knowledge of the earth, and under and over the earth of the sun, moon, stars, the airs and gases that enwrap this planet, than can readily be classified and interpreted. We are told, indeed, that it will take many years to process the data that has been accumulating. Plans for appraising and making use of the results have been set up by the International Council of Scientific Unions, the parent organiza-

tion of IGY. All the routines of international co-operation in scientific matters will be carried over to Geophysical Years of the future.

Space. A committee on space research will be set up to prepare by the end of 1959 a program for long-term international coordination of space exploration and for exchanging information. Both the United States and the Soviet Union have asked the United Nations to help set up machinery to insure that outer space will be used only for peaceful purposes.

The most spectacular achievements of the IGY were, of course, the satellite launchings and other ventures into space, which are dealt with elsewhere in this volume under SPACE EXPLORATION.

The discovery of quantities of mineral wealth, including manganese, iron, cobalt, and nickel on the ocean floor, in a form that could be easily processed, is one unexpected result of the IGY researches. Another important achievement was the finding by Dr. James A. Van Allen that the earth is encircled by two doughnut-shaped belts of trapped electrical particles.

Antarctica. During the IGY men from 11 nations wintered in Antarctica, which has proved a rich source of scientific data. Dr. Laurence M. Gould, who heads U. S. research in the polar regions during the IGY, believes that certain polar valleys only 300 miles from the South Pole may become a mecca for geologists. Coal leaf impressions and fossilized trees found in the region show that it was once densely forested. Many of these valleys near the Ross Ice Shelf are free from ice and snow, and future explorations are indicated.

The U. S. base at Little America was closed at the end of 1958. Dug out of snow and ice, it has been the hub of many types of scientific activity in the past two years. Samples of water and air, and cores of mud and sand taken from the sea floor, will be a part of the "evidence" taken back for analysis. A tractor train, preceded by a work party searching out and filling in ice crevices, was to carry equipment overland across the Ice Shelf to McMurdo Sound.

EXPLORERS MEET. Sir Edmund Hillary, left, leader of South Polar expedition, and Dr. Vivian Fuchs, center, leader of another British expedition, meet with Rear Adm. George Dufek, head of U. S. programs at the South Pole.

INTERNATIONAL

AMINTORE FANFANI, Italy's new premier. He took office supported by a two-party coalition, without a majority in parliament. Fanfani is a Christian Democrat.

GEN. IBRAHIM ABBOUD took over the government of Sudan peacefully in November. He charged former government officials with corruption, but will not bring them to trial.

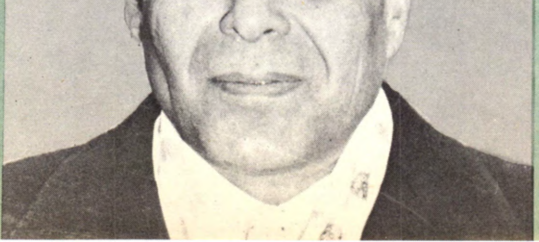
ARTURO FRONDIZI became president of Argentina early in 1958, reportedly with the support of followers of Peron. His country faced economic troubles.

News Makers

MIKHAIL A. MENSHIKOV, Soviet ambassador to the United States, and his wife on their way to a diplomatic reception at the White House. Menshikov, who speaks English, has made many public appearances throughout the country.

F. R. KOZLOV, First Vice-Chairman of the U.S.S.R. Council of Ministers, was No. 2 man in Russia—at the end of 1958.

HABIB BOURGUIBA, Tunisian president and friend of the West, demanded the withdrawal of French troops from his country. Bourguiba is anti-Nasser and has charged U.A.R. officers of plotting his death.



ISRAEL

EMBLEM DESIGNED for 10th anniversary observance suggests a growing plant and also the Jewish 7-branched candlestick, the *menorah*.

Tenth Birthday. In 1958 the small, embattled country of Israel observed its 10th anniversary. There was ample reason for celebration and thanksgiving. Israel's accomplishments in this short period of national life have been remarkable. But joy was mixed with sadness, and tension mounted during the year.

Israel's borders are insecure, its existence threatened. The adjoining Arab countries will have no dealings with a government which they regard as an illegal intruder in the midst of the Moslem world. The uneasy truce, the unsolved (but not insoluble) problem of the refugees, and the drive toward Arab political unity, all combined to temper the mood of rejoicing. Israel has not only the difficulties of any pioneer country but its own special ones.

Zeal and Devotion. Israel's dynamic growth would have been impossible without the ardor and generosity of the people. A passionate devotion to the aim of establishing a national homeland united Jews of many lands in the effort to realize this age-old dream. The outpouring of moral and financial support, particularly from the United States, has been continuous. Israel's economy is subsidized, but this situation will not be permanent. Through effective exploitation of natural and human resources the country can probably be made self-supporting in the near future—barring war.

The Role of Science. Another factor

that helps to account for Israel's rapid progress is the use of science and scientific method. No other country has, to so great an extent, been based on science. Its first president, Chaim Weizmann, was a distinguished chemist. Weizmann's contributions to the winning of World War I placed Great Britain in his debt. He was offered a title, but he declined that and asked for and secured the famous Balfour Declaration, promising British support for a Jewish homeland in Palestine. The Weizmann Institute of Science at Rehovot is a monument to his genius.

Science and education were essential if Israel were to make the most of comparatively few and poor resources. The latest knowledge in agronomy has been applied to build up a worn-out soil. All kinds of devices have been used to stretch and distribute an inadequate water sup-

SEA OF GALILEE, along whose shores lies the ancient town of Tiberias, built during early Roman times. With its springs, fine hotels, and public gardens, Tiberias continues to be a popular resort, just as it was in the time of Cleopatra and Herod.

ply—even to entrapping morning and evening dews to condense around the roots of newly-planted trees. Experimental work in freeing sea water and underground water of salt is at an advanced stage. By hard labor and skill, desert lands have been reclaimed and now produce rice, citrus fruits, and many other products for home use or export. Acre by acre, the stony Negev is being conquered.

Scanty mineral resources are also exploited. The most valuable of these are the potash and nitrates taken from the Dead Sea. Where clay is found suitable for ceramics, a ceramic plant is established on the spot. The desert sands are used in glass-making. There are plans for extracting valuable minerals, which occur in small quantities, in many unpromising-looking areas.

Human skills are utilized in the same searching way. Among the immigrants have been practitioners of all arts and sciences, trades and crafts. In general, the policy has been to allow workers to function along the lines of their talents and training; but if too many lawyers or businessmen landed on Israel's shores, the bureau in charge of their absorption urged them to work in factories or on farms, at least temporarily.

Law of the Return. Immigration to Israel, according to the Law of the Return, passed by Israel's parliament in 1950, is open to every Jew. The population has trebled in ten years, and now stands at two million. The people came from East and West, from Central Europe, from North Africa, Iraq, and Yemen; a few from the United States. No common

TRANSIENT CAMPS are provided for the latest arrivals. This immigrant from North Africa has built a brick oven—even though the temporary huts for transients are provided with stoves.

language bound them. Some were assimilated, non-religious Jews from advanced technological cultures, others, strictly orthodox in the main, were a product of the primitive, feudal Mideast. In 1957 a total of 100,000 arrived—and the tide continues.

The absorption of the newcomers imposes a great strain on the economy. They are given food, shelter, jobs, or work training, if that is necessary. Some are broken, physically and psychologically; many are aged persons or orphans, not able-bodied workers. No small number of them expected Israel, the Promised Land, to be a paradise instead of a rather raw country in the throes of growth. Receiving the immigrants, rehabilitating and training them, presented Israel's leaders with a great challenge. In meeting it they have made fresh advances in many departments of social welfare.

Official Language. Hebrew was established as the official language, with Arabic as a secondary one. For more than 50 years, the ancient Hebrew tongue has been steadily expanded and shaped to meet the needs of a modern technical age. Hebrew is basically a Semitic language and it has kept its original guttural sounds. But it continues to grow. Grafted onto it have been words and expressions from many other languages, each new wave of immigrants contributing something. Most Israelis speak several languages.

Other Peoples. After the founding of the Jewish state, a substantial Arab population of 140,500 remained. The Arabs share in public services, they vote and are represented in the parliament, but have their own courts. Another religious strain is represented by the Druses, who live in villages in the Carmel and Galilee districts, making their living as farmers and craftsmen. Good soldiers, the Druses fought with the Jews when the Arab countries invaded in 1948. Although not fully integrated, they have a share in Israel's progress.

POTASH and other mineral deposits in and around the Dead Sea are among Israel's most valuable natural resources. This is a suction pump at the Dead Sea potash works near Sodom.

There are also some 45,000 Christians in Israel. Many are members of religious orders in charge of various shrines. Others operate schools and hospitals. One Christian group runs a collective farm. The adherents of non-Jewish religions observe their days of rest and other holy days as they do elsewhere.

Israel's Nationality Law, which discriminated in several ways against the non-Jewish partners of mixed marriages, has been revised. The change in the law followed the protests of Polish immigrants, many of whom wished to return to Poland. They now may do so.

Agricultural Systems. The collective farm, or kibbutz, has been a basic feature of Israel's agriculture. The land of the collective farm is rented on long-term leases from a non-governmental organization. Members of the kibbutz, the

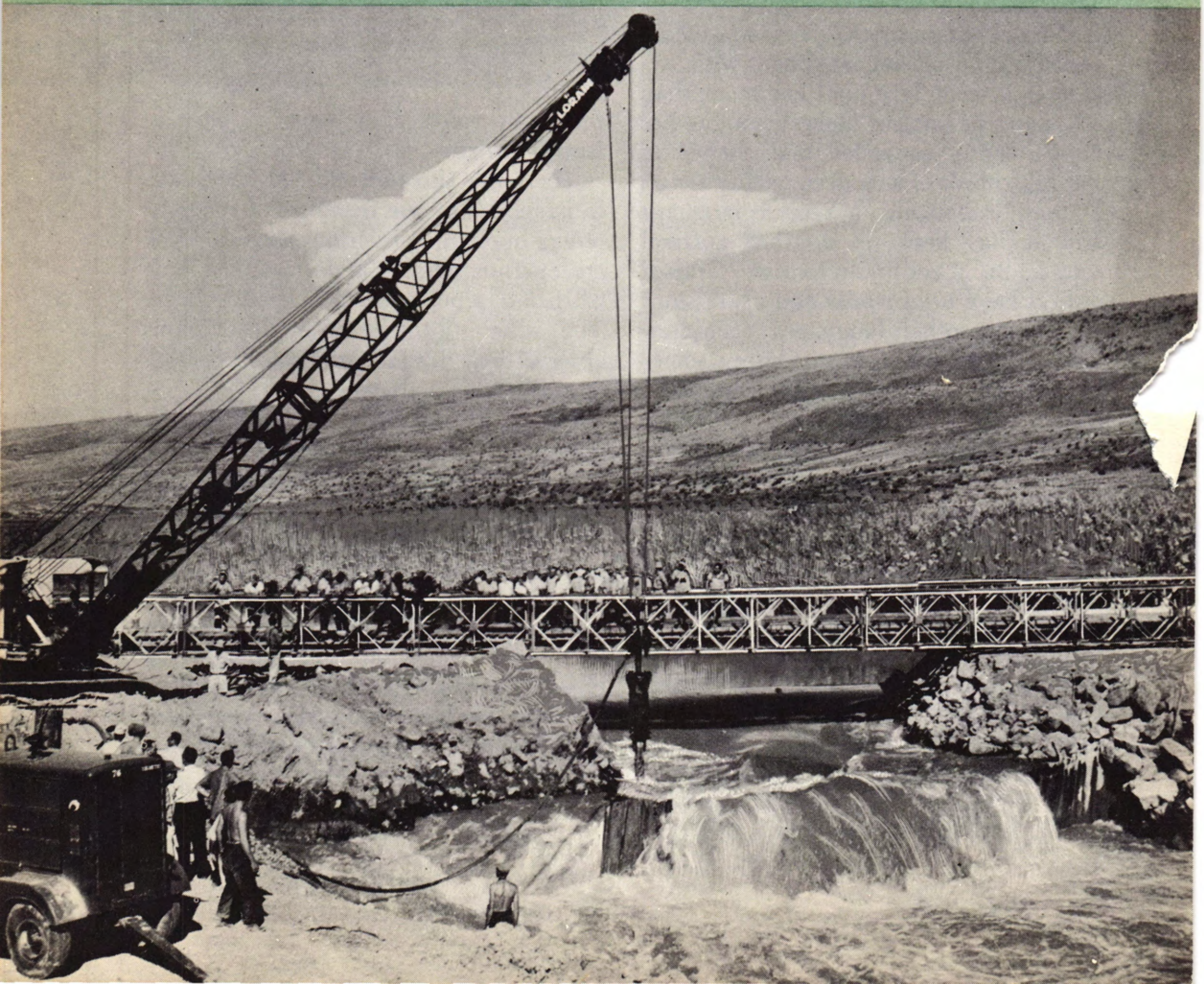
workers, have all their needs cared for but do not share in profits. Early immigrants from Europe, before statehood was achieved, were founders of this system, but it proved less attractive to those who came later. With the current heavy immigration from North Africa, the kibbutz is again to the fore. It offers the quickest and cheapest way of settling a new family into the life of the country.

More popular today are agricultural communities that offer lesser and varying degrees of collective living. In some areas, tracts of land may be individually owned, but tools, seeds and other facilities are shared, and the owners usually live in nearby villages.

In all its enterprises, Israel has been successful in enlisting the energies and enthusiasms of the young people, who learn early to carry a heavy load of responsibility.

The Army. Israel has established a citizens' army, in which everyone serves. Young people of both sexes have a period of army training. Men serve two and a half years between the ages of 18 and 26, or two years from 27 to 29. Unmarried women aged 18 to 26 serve two years. The compulsory military service includes a period of agricultural training. Men up to the age of 49 and childless women up to the age of 34 are liable for service in the reserve. New immigrants often do

ISRAELI WORKERS proudly watch as the derrick removes block and releases Huleh waters, last step in an irrigation project.



their army service soon after their arrival. Israel's army becomes for them an all-around school. Military service and training are combined with learning the language, and other subjects, with guarding the frontiers, and tilling the soil.

Israel's Cities. Tel Aviv, with a population of 365,000, is the largest city. It was founded in 1909 by early Zionists in a suburb of the ancient seaport of Jaffa, which it has now far outgrown. Tel Aviv has strikingly modern architecture, many parks, and a beautiful stretch of waterfront. The third city in size is Jerusalem, with 150,000 people. It is the capital and the seat of the Hebrew University. The old part of the city belongs to the Hashemite Kingdom of Jordan. There is no traffic back and forth save by special dispensation. Haifa, port city, has a population of 160,000, and is the location of the important Institute of Technology.

Economic Developments. Oil was first discovered in the Negev in 1955. By the end of 1957 twenty wells were in operation, with an average daily production of 1,500 barrels. Further research and exploitation into the natural resources of the Negev continues. Israel manufactures or processes a wide range of products, including chemicals, glass, ceramics, tobacco, electric goods, leather goods, diamonds, precision instruments, metal products, foodstuffs, and building materials. The textile industry operates 70,000 spindles.

The new road from the Negev to the port of Eilat, a two-lane asphalted highway, was opened in 1958. This connection with the Red Sea is very important to Israel's economy, and there are plans for building a railway to Eilat. In 1957 Israel completed an oil pipeline which runs from Beersheba to the southern port. Work was continued on a project for bringing some of the Jordan's waters to irrigate the southern desert.

Political Front. When Israel's independence was declared in 1948, David

COTTON is one of Israel's newer products, grown in the north Central Huleh region, where swamps are being reclaimed.

Ben-Gurion was proclaimed prime minister of the provisional government. A leader of the Jewish Labor party, Ben-Gurion was known as a person of competence and integrity. After serving his country as prime minister and defense minister, in 1955 he retired to a kibbutz, to spend his remaining years in scholarly studies. He was soon recalled, and stayed at the helm during the Israeli-Egyptian conflict of 1956. At 75, he is again looking forward to retirement. The question of succession naturally arises.

Among the younger men mentioned for high places in Israel's political life is former Chief of Staff Maj. Gen. Moshe Dayan, who led the Sinai assault. Dayan resigned afterward, announcing his intention of returning to university studies. Among other prominent younger men is Abba Eban, who has served at the United Nations and who at present is Israel's

MIXED ARMISTICE COMMISSION members recover soldiers' bodies from desert graves for proper burial.

ambassador to the United States. Dr. Yigael Yadin, a brilliant archaeologist who has won fame for his work on the Dead Sea Scrolls, has been suggested for public office, although he is not identified with a political party.

Israel has a coalition government composed of several parties. The strongest of these is Mapai, which is a little left of center. There are parties of the extreme right and left which are not included in the government. There are several religious parties. Thus far the new Afro-Asian immigrants have shown little interest in joining the political parties. Only one cabinet member belongs to this group.

Celebration. Israel's celebration of its first decade began in April, 1958, and was to continue to May, 1959. Tourist facilities were expanded, with all types of accommodation provided. There were guided tours to modern points of interest as well as to Biblical and archaeological sites. The main exhibition space, in Jerusalem, presented the story of industry, farming, and manufacturing. A series of pageants, military parades, film, dance, music and drama festivals were spaced through the year. Mendelssohn's "Elijah" was performed near the cave of Elijah, Haifa. Visitors of the Catholic faith participated in special masses held throughout Israel in the various shrines and churches.

Eleven international airlines give service to Israel. The country's own El Al Israel Airlines fly British Turbo-jets. Flights from the United States and cruises from England were enjoyed by thousands, but the threat of war kept many away from this area of the world.

Arab Hostility. The outstanding political fact of life is the steady hostility of the adjoining Arab nations. This situation presents many complicated historical, legal, and ethical problems. Proponents of one side can rarely see the other. Although individual families of Jews and Arabs often live peacefully side by side, the public policy of the Arab states is that Israel was founded illegally and must be destroyed. Unrestricted immigration to Israel has given the Arabs the idea that the country will soon be demanding more territory. The war of 1956 heightened Arab fears. Israel is also regarded as a front for Western "imperialism." Prime Minister Ben-Gurion inflamed Arab fears further by announcing that the country can absorb another million Jewish immigrants in the next ten years.

At the core of Arab hostility is the plight of the refugees who have been a political pawn through the years. Thousands of Palestinian Arabs fled from their homes in panic during the war of 1948, when Israel's neighbors attacked. The in-

THESE SIMPLE APARTMENTS near Beersheba are part of a great construction program to provide homes for new settlers in Israel.

vaders were repelled, but very few of the refugees returned. They settled in camps in Jordan, the Gaza Strip (Egypt), in Syria, and Iraq, and for ten years have continued to be the most troubling single fact in the Arab-Israeli situation.

Securely Based. Israel's existence as a nation was recognized and guaranteed by the United Nations in 1949. It is not, however, recognized by Arab nations, who have no trade, travel, or diplomatic exchange with the beleagured country. Dag Hammarskjold made three trips to the region in 1958 to effect an improvement in the general Mideast situation. As regards Israeli-Arab relations, as a pre-condition, the Arab countries demand the resettlement of all Arab refugees in Israel. Israel could not accept this—and continue to exist as a nation. Plans were afoot in 1958, however, to transfer some of the Jordanian refugees into Iraq, where new developments have created jobs. Israel asks for the armistice to be replaced by a peace treaty and the establishment of normal relations between nations.

The union of Egypt and Syria in 1958 brought a new threat to Israel, but—beyond radio blasts from Cairo—was not followed by any aggressive moves.

Lesson in Hebrew for Tourists:

Shalom: greeting (hello, goodbye, literally peace)
Medinat Yisrael: State of Israel
Golah: Diaspora
Kibbutz galiyot: Ingathering of exiles
Aliya: immigration
Hatikva (the hope): national anthem
Sabra: native-born Israel (literally cactus)
Ivrit: Hebrew language
Kibbutz: communal farm
Histadrut: General Federation of Labor

MODERN ITALY is a mecca for young artists, craftsmen, architects, and designers. Towering above these art students in Rome is the equestrian bronze statue of Marcus Aurelius, who seems to extend a benevolent hand over them.

JAPAN

Conservative Victory. If going to the polls is a test of democratic citizenship, then Japan ranks high as a working democracy. Forty million persons—nearly 77 per cent of elegible voters—cast their ballots in the national election of May, 1958.

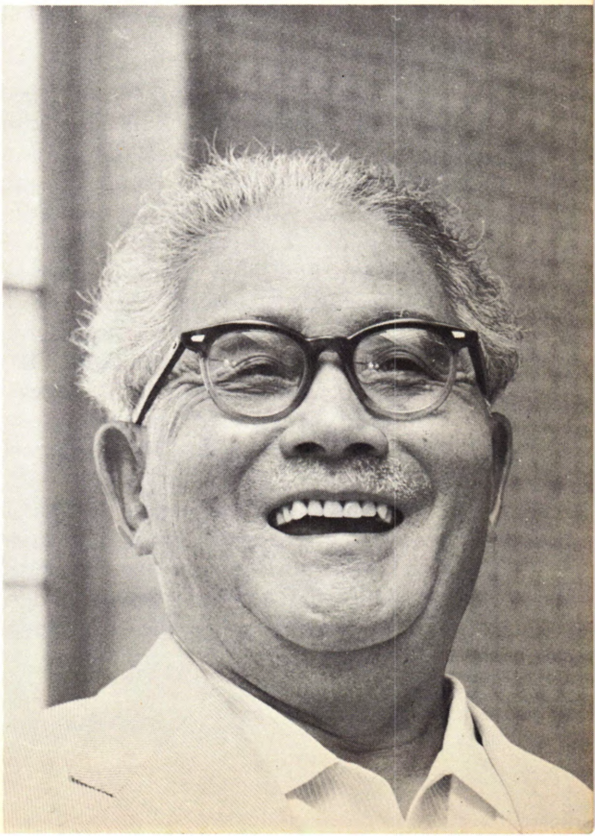
Nobosuke Kishi, leader of the Liberal Democratic (conservative) party, won an easy victory over his chief opponent, the head of the Socialist party. However, the Socialist party registered a sharp gain, with a million more popular votes in its column and eight additional seats in the Diet. The Communist party polled more than a million votes but got only one seat. The vote showed continued support for pro-Western policies.

New Prime Minister. Mr. Kishi, first elected premier in 1957 to fill out the term of Tanzan Ishibashi, who retired because of illness, is pro-West. He looks to the West for capital to develop Japan's industrial potential. The Socialists, on the other hand, want Japan to follow a neutralist course, to recognize and trade with Communist China, and to abolish the U. S.-Japanese security pact which permits the stationing of U. S. troops in Japan.

Kishi, aged 62, is a member of an ancient Japanese clan. He is a brilliant administrator, having played an important part in Japan's pre-war industrialization of Manchukuo, where he was a top official. During the war he held important government posts, for a time as head of munitions production. Industrial and business circles support him strongly. Although he is oriented toward the West, he is no American puppet. Among his campaign pledges were the recovery of Okinawa, the prohibition of U. S. nuclear testing and the banning of nuclear weapons from Japanese soil.

Remarkable Recovery. In some respects, Japan's post-war recovery has been even more spectacular than that of West Germany. Its economy has fluctuated somewhat, reaching a high point during the Korean War. It slumped a bit afterward, then went through another period of expansion. Today Japan is more prosperous and has a higher standard of living than any other country in Asia. With few natural resources and depending for survival on international trade,

JAPANESE TYCOON, Keita Goto, owns theaters, stores, bus lines, and railways. In Japan his name symbolizes big business or *zaibatsu*, gigantic industrial combines which concentrate economic power in the hands of a few.



TOURISTS DELIGHT in the souvenir shops and stalls in Akasuka, an amusement center in Tokyo, here decked out in New Year decorations.

Japan has built up its markets with speed and skill. It has won back its old trading areas in Southeast Asia ("the co-prosperity sphere") and is going into the Mideast and Africa. The perfect trading partner for underdeveloped countries, Japan can now offer them all kinds of consumer goods, machinery, and technical equipment—as well as the technicians to operate the machinery. If a country cannot afford to buy, Japan is willing to extend credit, gambling on a share of future profits from whatever resources the country may have.

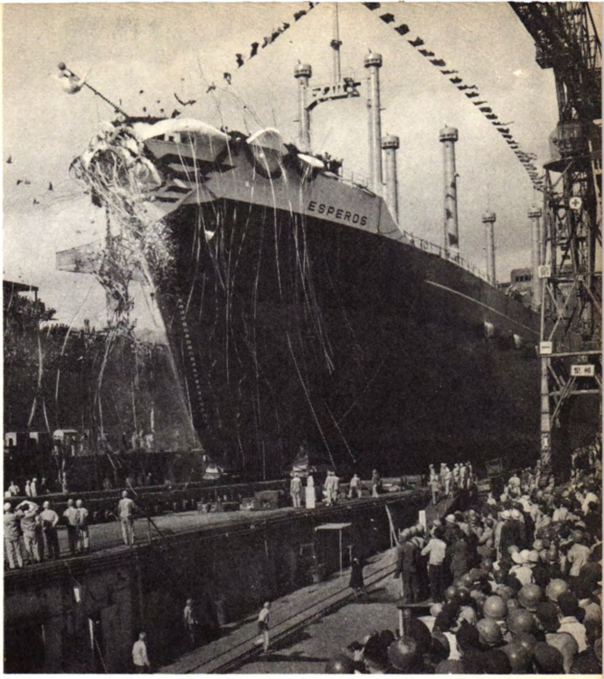
From Silk to Ships. Japan still has its pre-war pattern of importing raw materials and exporting manufactured products—but the products have changed. Whole new industries have developed. Instead of exporting paper, china, novelties, silk and other textiles, and processed foods, Japan is today exporting television and radio sets, cameras, sewing machines, synthetic textiles, watches and clocks, optical and precision instruments, automobiles, motorcycles, motor scooters, fertilizers, pharmaceuticals, and plastics. To upgrade their products and get away from their old reputation for producing much that was cheap and imitative, some manufacturers are now labeling their products: "Made *only* in Japan."

The electrical and petrochemical industries are also being built up. For three years, Japan has led the world in shipbuilding. In 1957 it launched nearly 30 per cent of the new tonnage, and in 1958

had orders for two years' production.

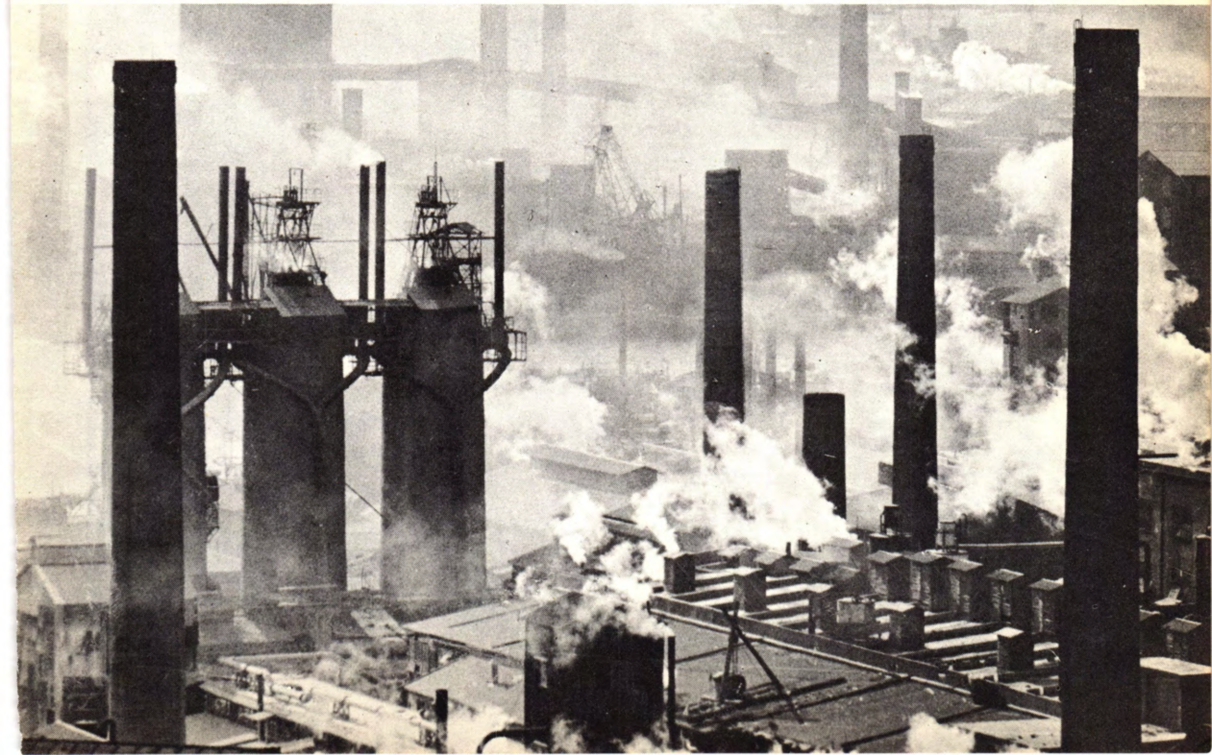
Japan must buy the things needed to keep its shops and factories operating. It imports 90 per cent of its iron ore, 30 per cent of its coking coal, 98 per cent of its petroleum, and from 80 to 90 per cent of its food. Japan is the United States' biggest customer for farm products—raw cotton and wool, wheat, rice, and soybeans, and also buys important quantities of petroleum, iron ore, chemicals, and scrap metals. Since the end of the war the trade balance has been heavily in favor of the United States.

Population Pressure. Japan's population of more than 90 million is crowded into four islands which comprise an area about the size of California. Tokyo is today the largest city in the world, its growth due to Japanese nationals who have returned from former possessions and those from the other islands who have come there seeking jobs. The population increased rapidly between 1945 to 1955, but is now rising at the rate of only about 1 per cent per annum. While



AFTER THREE YEARS as leader in shipbuilding and setting the world record in 1957, Japan dropped to second place in 1958, standing after Britain.

YAWATA CITY, on the island of Kyushu, is Japan's great steel-producing center. Even now Japan is facing competition with Communist China, launched on a nation-wide effort to produce more steel.



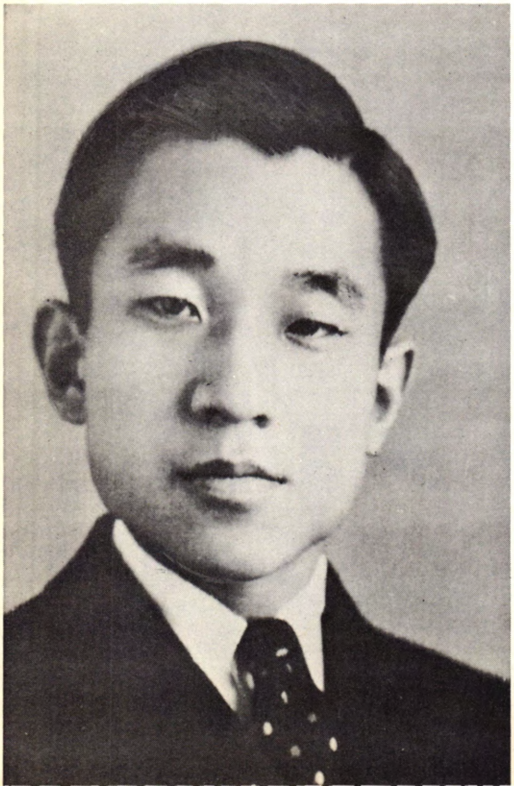
JUGGLING ACT? No, just the normal routine of a delivery boy coming out of a shop to make his noontime deliveries of bowls of *soba*—buckwheat noodles in soup.

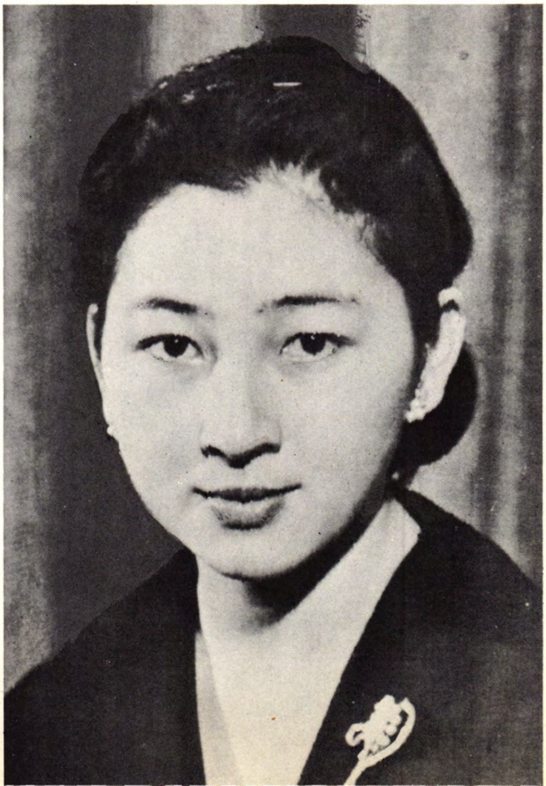
the birth rate has gone down in the past three years, the death rate too has been lowered. Life expectancy in Japan stands at about 60 years—twice what it is in some Asian countries.

In addition to trade, agriculture and fishing are the mainstays of the people. Only about 17 per cent of the land is suitable for cultivation. Food production, in view of limited acreage, is high, due to efficient methods, diligence, and the family-farm system.

Much of the old traditional Japan is gone today. The military caste is finished as a power in politics. The people's attitude toward their emperor has changed, and the institution itself has dwindled in importance and sanctity. The Emperor Hirohito, a mild, cultivated man, interested in botany and biology, is a link with the traditions and customs of the past. He is a symbol of continuity, as is the British monarch, rather than an active and awe-inspiring force. Yet beneath the surface Westernization, the unique character of Japanese culture remains, almost unaffected by the American intrusion.

CROWN PRINCE AKIHITO and his fiancee, Michiko Shoda. The Imperial Council swept aside a tradition going back 2,600 years when it approved the romantic alliance of the Japanese heir with a commoner. It is another sign of Japan's forward look.





LABOR

Ugly Disclosures. Revelations of crookedness on the part of some officials of big unions has the effect of creating mistrust of labor's leaders and antagonism toward the whole labor movement. This reaction has been expressed in the wave of "right-to-work" laws which have been adopted by many state legislatures. Congress is also expected to consider legislation that will aim at correcting some of the evil practices recently brought to light.

Hoffa in the Limelight. The 1958 hearings of the anti-rackets committee (Select Committee on Improper Labor and Management Activities), under the chairmanship of Sen. John L. McClellan, with Robert Kennedy serving as chief counsel, were a continuation of those of the previous year. One outcome of the 1957 hearings was the conviction of Dave Beck for embezzlement. Beck was retired by the Teamsters Union as "president emeritus" and continued to draw full salary. During the spring and summer of 1958 James Hoffa, and some of his unsavory henchmen, held the limelight. Hoffa was elected to succeed Beck while under indictment on a wire-tapping charge and on call to testify before the McClellan Committee. His wire-tapping trial ended with a jury disagreement, and a compromise settlement out of court prepared the way for him to take over union leadership.

The 1958 hearings revealed that Teamsters Union officials had many connections with the criminal underworld. Also, it appeared that the looting of union treasuries, or common larcency, could be effected under the label of bonuses, expense accounts, or other prerequisites. In fact, the membership's support of Hoffa showed indifference to the underworld connections as well as to the financial juggling. So long as Hoffa got them increases and benefits, they were willing to give him a blank check in running the union's financial affairs.

Rights Misused. However, most of the evils which shocked the general public had grown out of basic union rights: the right to organize, to bargain, to strike. These rights have been won through long struggle and have been confirmed by law. Yet the abuse of these rights by unscrupulous men is the big problem that organized labor should be trying to solve. Otherwise, Federal legislation designed to curb union activities may be expected soon.

For instance, in preying on ignorant Puerto Rican workers in New York, Johnny Dio was making use of, really misusing, the right to organize.

This same right to organize has sometimes led to the establishment of phony phantom locals—and these are used to help rig elections and insure gangster control.

In signing the so-called "Sweetheart" contracts, corrupt men have used or misused their union's authority to negotiate contracts—and have thus lined their own pockets with bribes from employers.

In like manner, the right to strike is sometimes used in such a way as to cause violence, bloodshed, and destruction of property.

Right to Work. In spite of the bitter opposition of organized labor, "right-to-work" laws have been adopted by 18 states and were in force in 1958. Indiana is the only highly industrialized state to have such a law. Six other states—California, Ohio, Colorado, Washington, Idaho, and Kansas—voted on various right-to-work propositions on November 4. Only

CHILDREN OF MEXICAN migratory farm laborers. The million migrants have the lowest living standard of any class in the United States. Some are Southern white sharecroppers, driven off the land by mechanization, while others are Negroes and Puerto Ricans.

Kansas, a farm state, gave its approval. The other five rejected the proposition.

Basically, right-to-work legislation bans a union contract which requires a man to join a union in order to keep his job. It establishes the principle of the open shop.

Indiana's right-to-work law went into effect in 1957. The law did not disturb existing contracts. Most unions signed new long-term contracts just before it went into effect. Therefore its over-all results cannot yet be fully assessed.

Unions Weakened. The executive director of Indiana's Department of Commerce has stated that the law has helped

to boost the number of industrial plants locating in the state, 38 of them from Michigan, where labor unionism is strong Some workers are quitting unions as soon as the expiration of contracts makes it possible for them to do so. The proportion of these has been small. Some who dropped out returned when they discovered that non-members received no strike benefits. Others returned when they learned that "right to work" did not mean that management must supply work.

In the long run, union leaders are agreed, such legislation will weaken the unions, giving the leaders less control.

The proponents of right-to-work are represented by a strong lobby in Washington. The National Right to Work Committee was formed in 1955. Most of the original members were from Southern states, where unionization has been resisted. Both employers and former labor union members are represented in the movement.

After the setback in the November elections, funds were being solicited to renew the campaign in the following states: Illinois, Louisiana, Wisconsin, Wyoming, Maryland, Connecticut, Delaware, Rhode Island, and Michigan. In view of the Democratic victory, it seems doubtful if the movement will chalk up further gains in the 1960 election.

The Great Majority. The Becks and the Hoffas are not the whole picture. In contrast to the bad faith of a few is the steady, honest service of the many, not only in the interest of their unions but of the community at large. For the past dozen years, some 75,000 labor union officials throughout the country have been serving public causes, working with other groups in their communities, mainly without pay. This represents a new trend in organized labor.

A New Trend. In the past, the pattern of labor organization has been to fight for bread and butter, for their own ad-

GEORGE MEANY, president of the AFL-CIO, is a strong defender of labor's role in politics.

vantage, against "the bosses." Today, with management—save in rare instances—recognizing the workers' right to fair pay, there is far less animosity between the two groups. The basic struggle for a minimum wage has been won—and is

now the law of the land. The long and cruel strike is an exception rather than a rule. Violence in labor disputes is infrequent. The typical labor leader is a trained negotiator, a man who can write well and speak well. He sees beyond the immediate interests of his group. He is a very different figure from the over-dressed, over-fed Miami Beach playboys with their finger in every disreputable racket—whose pictures and doings made the front page so often in recent months.

New Responsibilities. "The new American frontier is the community." This quotation from a report of the CIO Community Services Committee of Milwaukee expresses this attitude. Poverty, slums, misery, and crime exist in every town of the land, and it has become a part of the program of progressive unions to work with other groups to remedy these evils. Organized labor is fighting for better schools, parks, and recreation facilities, for improved tax laws, for honest government, for charitable organizations. Most of organized labor has accepted these new social responsibilities, along with a political orientation that pushes it, in general, toward the Democratic party.

Migrant Farm Labor. Among the groups where labor organization lags are the migratory workers. Migratory farm families or single workers have presented a social problem to many communities through the years. During the depression it was native-born Americans, sometimes called "Okies," who left the Dust Bowl, to drift west and north in search of work, with their children and battered belongings, loaded crazily in an old jalopy. There are still a certain number of migrant Americans who follow the ripening crops northward. Later, however, it has been mainly Mexicans. They crossed the Southwest border, often swimming the Rio Grande (which caused them to be labeled "wetbacks")—to find seasonal work on the ranches. Transients from the British West Indies have been the most recent of the foreign migratory laborers. They have been imported from the islands, where unemployment is very high, to gather apples and other fruit in the great orchards of Virginia and further north. They are preferred by the big growers because they work for less pay than the local laborers.

Migrant laborers have the lowest standard of living of any portion of the American working class. In a good year, a family may make about $1,000. Single men invariably send money home to relatives.

Labor Secretary. Although most labor organizations were not pleased with President Eisenhower's appointment in 1953 of James P. Mitchell as Secretary of Labor, to succeed Martin Durkin, President of the Plumbers' Union, they now are inclined to regard him as fair-minded and competent. Mr. Mitchell is a middle-of-the-road man whose business experience has been that of labor relations in the department store field. He defends the union shop as "a perfectly legal and a perfectly moral arrangement," and according to George Meany, president of the AFL-CIO, Mitchell "is making a splendid record."

Desegregation. Many unions which in the past have discriminated against Negroes and Puerto Ricans have now removed all restrictions to membership. There are an increasing number of non-white trade union officials.

Unemployment. During the year unemployment varied a good deal seasonally and geographically. At the year's end, the picture was not too dark, although the number of unemployed stood at 3.8 million—about 5.6 per cent of the labor force. Jobholders numbered 64,700,000. During the spring and summer, 70 per cent of the country was experiencing unemployment ranging from 3 to 12 per cent.

LISTENING

Listening to Learn. People were able to communicate long before they learned to share their ideas and information through reading and writing. Primitive man was an acute listener. He had to be, since the next meal, even life itself, depended on his sharpness of hearing and his accurate interpretation of the sounds of forest and plain—sounds made by birds, animals, or an approaching enemy.

Although civilized man is less well trained as a listener, listening concentration is also essential today. From birth the child learns by listening, first to comprehend, then to speak. At school the techniques of listening are developed further. Experience in listening, learning by listening, continues throughout life.

In some professions, the ear's functioning is vital to success. The orchestra conductor is a highly specialized type of listener, one who can detect the faintest trace of disharmony. The physician must listen with concentration, and the psy-

LISTENING-FOR-FUN is very different from listening-in-earnest. The latter requires concentration and a certain amount of physical tension.

choanalyst, the psychologist, and the counselor must be constantly alert to catch a revealing and significant phrase. Other skilled listeners are telephone operators, pilots, train dispatchers. In these and scores of other vocations, listening carries a heavy responsibility. A wrong number or word, a misinterpreted message, may bring disaster to others.

But every one of us is a responsible listener. In social contacts, listening attentively is the first rule of politeness. You must get the gist of what another person is saying if you hope to make a sensible rejoinder—and one that will stimulate your conversational partner to further expression. In family life, every parent has a fresh opportunity daily to encourage children to express themselves freely and fully by listening sympathetically, with complete attention, to what they have to say.

Learning to Listen. You don't have to be brilliant to listen well, for this faculty is not highly correlated with intelligence. In most persons, however, it is not well developed. Many college students are such inefficient listeners that courses in listening—in reality, courses in concentration—have to be set up for them. And only about 25 per cent of the adults listening to a formal talk are able to grasp the speaker's central idea! To develop this skill requires some training in recognizing the scaffolding or organization of the lecture, hearing transitional phrases, and in noting the use of summary. Here are some additional rules for listening to a public speaker. They can all be mastered with a little practice.

1. Express interest by your physical attitude.

2. Concentrate on content, not delivery. Confine your attention to what is said, not on the speaker's mannerisms.

3. Hear him out. Don't react too soon to what he is saying, whether you agree or disagree. This is a sure way of missing some points and thus misunderstanding what he has to say.

4. Listen for ideas. Note—either mentally or with pencil—the main ideas, and learn to discriminate between fact and principle, evidence and argument.

5. Watch for your own deaf spots. What you take in by listening is conditioned by what you already know as well as by your emotional patterns. People often unconsciously shut out what they don't want to hear. Also, certain words, red flag words, can send the hearer's mind off on its own beam—putting an end to intelligent listening.

6. Capitalize on thought speed. There is evidence that if thoughts could be measured in words per minute you could think four times as fast as the average person talks. Use that extra thinking time not to let your mind run off on tangents but quickly to review points already made by the speaker and to anticipate what is coming next on the basis of what has already been said.

MACHINES

KING OF SPADES, the largest shovel in the world, can be operated by one man, who rises to his third-floor operating cab by elevator. Its dipper would fill two railroad cars in one scoop and it uses as much electricity as the homes and industries in a town of 10,000.

AIR LIFT. The mountain village of Iserables, Switzerland, is so isolated that it must depend on this aerial cable car to get supplies. It has carried everything from cows to — in this case — a jeep.

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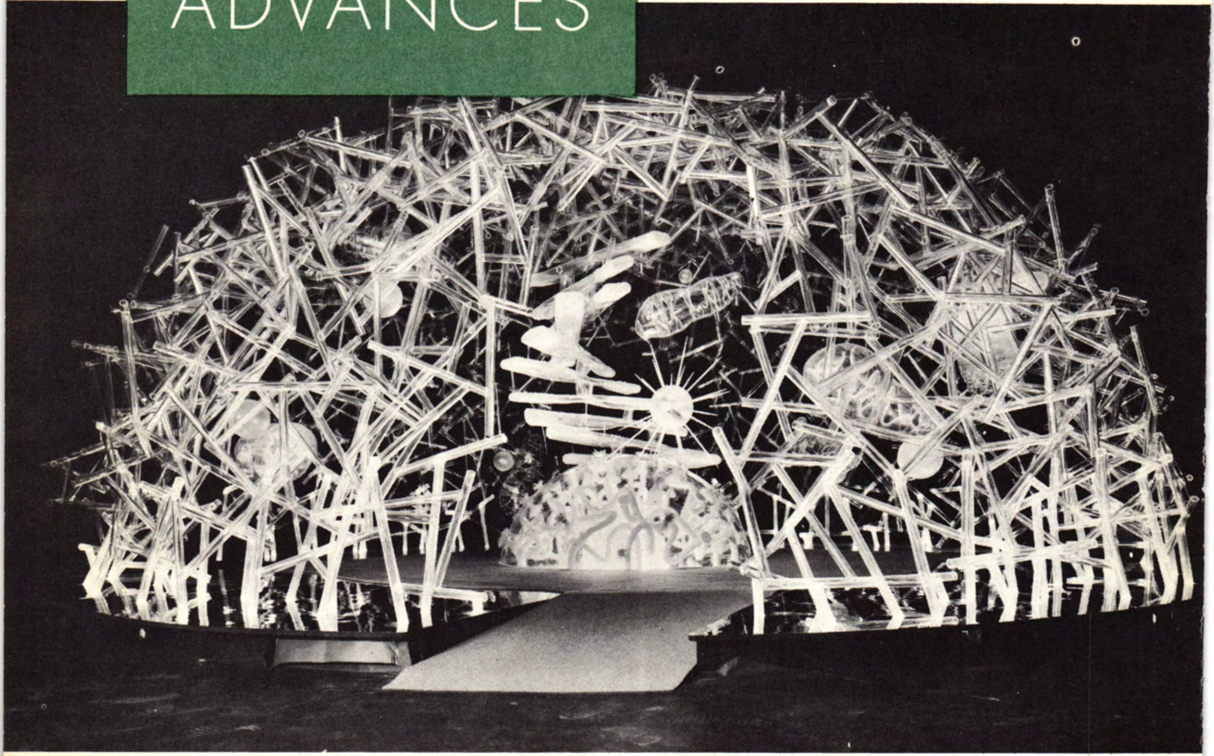


A GIANT PLASTIC MODEL of a human cell, 12 feet high and 24 in diameter, was produced for display at a recent meeting of the American Medical Association.

United States Needs Doctors. Have you tried to make an appointment with a doctor lately? Unless your ailment could be classed as an emergency, you may have been told that you could see the doctor three weeks from the following Thursday at 6:30, or earlier if someone cancelled an appointment. The reasons why doctors are so busy are not far to seek. The number of new doctors entering practice every year has not kept pace with the increase of the population. At present the United States—with one doctor to every 850 persons—stands below many other countries in the ratio of doctors to population.

Another obvious reason for the congestion in the average doctor's waiting room is that more people are seeking medical services than in former years, when home remedies were applied for minor aches and pains. Health and hospitalization insurance has also been a factor in causing people to attend to their ills promptly.

Rural areas are, in general, less well served by doctors than populous centers. The medical societies would like to see a better distribution of available medical talent. Any increase in the number of doctors is a long-term project, involving a multi-million dollar investment in new medical schools, as existing medical schools are pretty well filled at present.

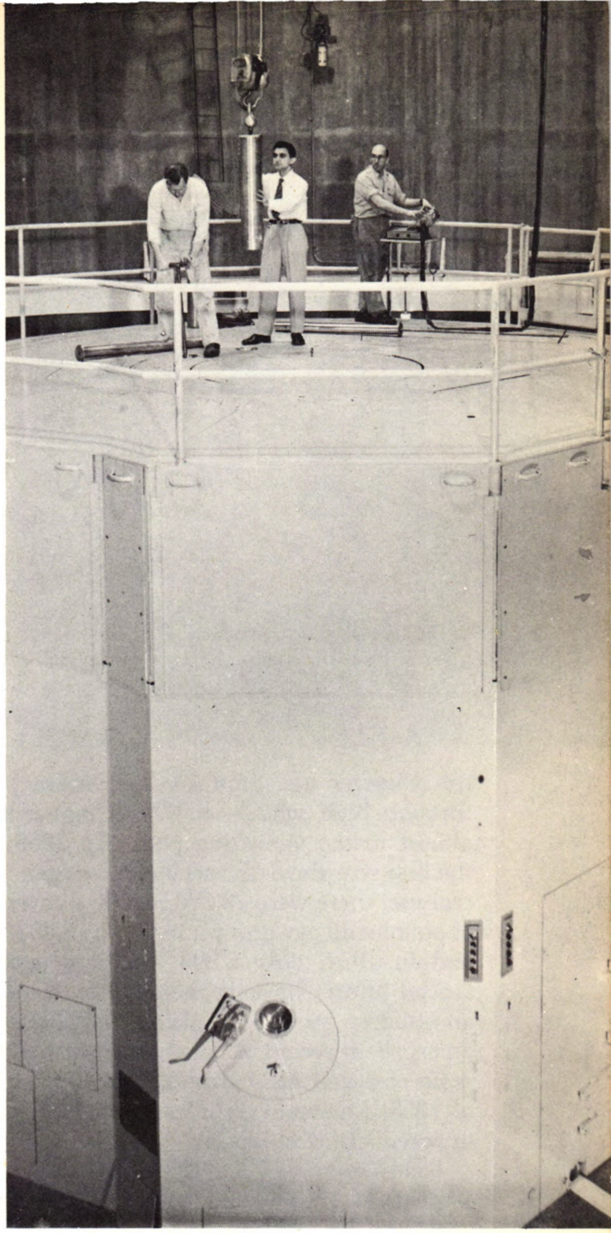
Research Doctors. Many graduate physicians prefer research to the never-ceasing demands of office practice. Hundreds of medical research projects are being

supported by the great foundations and by medical schools. From these various laboratories come most of the medical advances. One of the newer research specialties is aviation medicine, conducted by the U. S. Air Force and Navy directly or through contact with universities and research institutions. As man prepares to venture into the upper atmosphere and later into outer space, the human elements in flight have attained very great importance. Man's ability to tolerate the unnatural conditions is a decisive and limiting factor in aircraft speed, altitude, and maneuverability.

Hundreds of other research doctors are paving the way for "breakthroughs" in the field of communicable diseases, as well as cancer, arthritis, and other afflictions long considered incurable.

Malaria. Within ten years the scourge of malaria may be removed from the earth—save in the very remote interior of South America and Africa. The campaign against this disabling disease is being conducted by the World Health Organization, with contributions from 88 nations. The wiping out of malaria depends on the eradication of the parasite-carrying *Anopheles* mosquito. DDT has been used with great success in mosquito-infested regions, particularly throughout the Caribbean and Southeast Asia. However, if attacked by slow degrees the insects develop an immunity to this poison, and in time produce mosquitoes with definite genetic changes which make them able to survive what once would have been a deadly dose. Other chemicals are now being used where mosquitoes have developed a resistance to DDT. The best method seems to be the all-out quick war with this chemical. For persons already afflicted with malaria, there are new drugs that cure or mitigate the recurrent attacks by killing the parasite residing in the system.

Polio. After thorough testing, the Salk vaccine went into mass production in 1954, and its distribution and use throughout the nation followed quickly. It has also been widely used in other countries. In the United States the result has been that the incidence of paralytic polio among



NEW NUCLEAR REACTOR at the Massachusetts Institute of Technology will be used for general and medical research and treatment, and for the training of nuclear engineers. A facility for cancer therapy is under the core.

CONTRIBUTOR to medical knowledge in 1958 was Airman Donald Farrell, shown here emerging from the sealed space chamber where he spent seven days.

the younger age groups—from infancy through high school—has been reduced almost to the vanishing point. In 1955, the first year the Salk vaccine was in general use, there were 29,270 recorded cases of polio in all age groups; in 1956, 15,400, and in 1957, only 5,894. Cities where special efforts have been made to have all children receive the three shots have an excellent record. A serious outbreak of polio occurred in Detroit in the summer of 1958. Emergency clinics were opened to speed up inoculation.

Today some 44,000,000 persons under 40 years of age have not been vaccinated against polio. Although polio generally strikes the young, a number of polio fatalities have been persons over 40, and even persons in the 60's have been stricken. A new type of vaccine made of a live strain of polio virus has been developed by the Lederle Laboratories. One capsule, or one spoonful of fluid, is all that is necessary to secure immunity. The preparation will be sold by prescription. It has been tested in South America, and initial tests were also made on 1,000 persons in St. Paul, Minn. Before being marketed, it will be tested further by the manufacturers and by the Federal Government. It will be appreciated by the many adults who have a resistance to the three trips to the doctor's office now required.

Diabetes. There have been advances in the treatment of this disease which afflicts about a million persons in the United States. In diabetes, the body's ability to derive energy from sugars and starches is impaired due to the malfunctioning of the pancreatic gland which secretes insulin. Doctors say there are two types of diabetics, those who have an absolute lack of insulin and those in whom the pancreatic gland has been damaged or had its effect weakened by the over-activity of other glands. About 25 per cent of diabetics are in the latter class. For them, a new drug, Orinase, is being used. It is taken by mouth and thus saves the bother of injections with a needle. Orinase is also prescribed for those who are allergic to insulin. There is a definite hereditary factor in diabetes, although diabetics do not necessarily pass on this tendency to their children. Diabetes is a disease that can ke kept under control, and most diabetics lead nearly normal lives. Its cause is unknown.

Vaccine for Mumps. Many doctors now advise the adult who escaped mumps as a child to be vaccinated for this disease. About 20 to 30 per cent of the population reaches adulthood without having contracted mumps, a childhood disease that sometimes has serious after-effects for adults. Mumps in adulthood is thought to be the cause of male sterility in about 25 per cent of cases.

Tuberculosis. Early diagnosis is the main factor in the cure or control of tuberculosis. Although the disease is less prevalent than it was a few years ago, tuberculosis is still far from being eradicated. There are estimated to be 250,000 active cases of tuberculosis in the United States today, plus 350,000 inactive cases

requiring public health supervision. A vaccine for TB exists but is not widely used. Mass X-ray testing is still considered very helpful in early detection, according to the U. S. Public Health Service, but it should be applied more selectively than in the past. Healthy, robust persons need not be examined every year.

A new drug for the control of tuberculosis, isoniazid, has been given an initial testing on a group of tubercular children. It was helpful to the extent that major complications seem to have been prevented. Avoiding close contact with victims of TB, a healthful environment, and sound nutrition appear to be the important factors in prevention.

Heart Disease. Under this heading may be grouped a number of serious ailments relating to the functioning of the heart and the circulatory system. Research is producing important findings, from more effective control of high blood pressure through the use of certain new drugs, to many types of surgery, including the transplantation of arteries. Anti-coagulants, or blood-thinning drugs, are reducing the danger that new clots will form to produce second and third attacks in heart patients.

Framingham, Mass., is the site of a town-wide heart research project, sponsored by the U. S. Public Health Service. The project, begun in 1948, involves keeping health records of 4,500 persons between the ages of 30 and 62. Initial examination of these subjects showed smoking habits, habits of sleep and diet, and their general way of life. Follow-ups are being made at two-year intervals. When results are evaluated at the end of a 20-year period it is expected that much more will be known about heart disease. There is the possibility of eventually predicting, at the age of 30, who is likely to contract coronary disease or high blood pressure in later life—if he doesn't change his habits.

Headaches. There are many types of headaches. They involve a wide range of suffering from mild indisposition to the acute migraine attack which makes the victim take to his bed, producing 100 per cent incapacitation for one or two days. Nearly everyone has experienced one or more of the different types of headaches. The allergic headache, caused by susceptibility to a certain food, is a common type which is today receiving more attention. The tests used to determine the substance that causes the headache are fairly simple. The doctor assumes first that one of the six most commonly eaten foods — corn, wheat, milk, eggs, potatoes, and oranges — is responsible. Patients are forbidden to eat food con-

THIS SMALL DEVICE is a gastro-camera, capable of taking up to 8 photographs of the human stomach in black and white or color, when it reaches the stomach at the end of a gastroscope. Light is supplied by a tiny built-in bulb.

taining any derivative from one of them for four days, then, in the doctor's office, the patient eats some of it. If the patient is allergic to this food, reactions will be apparent almost at once. If not, another of the six products is eliminated from the diet for four days, and the tests continued. Organisms inhaled through the nose may also be responsible for allergic headaches—house dust, pollens, or feathers.

Migraine headaches are periodic and cause extreme pain. They too may be of allergic origin. Emotional tensions, personality type, and hereditary factors are also often involved. A drug, sold on prescription, today cures the great majority of migraine headaches if taken at the outset of an attack. It relieves cranial pressures involving nerves and blood vessels.

Milk for Immunization. For some years experiments have been under way in the Department of Dairy Science at the University of Minnesota to produce milk that has special immunizing properties. The process consists of injecting the udders of dairy cows with the viruses and bacteria that cause certain diseases. The animal then produces antibodies, which go into the milk. The theory is that after drinking this milk the drinker will gain immunity to the specific disease. Subsequent experiments were conducted in Libertyville, Ill., under the supervision of the Chicago Board of Health. These involved injecting the cows' udders with ragweed and other pollens on the theory that hay-fever victims would gain protection by drinking about a quart of the milk daily, before and during the hay fever season. It is still too early to judge the success of these experiments.

Arthritis. No cure has been developed for arthritis sufferers, whose number runs into the millions. Both osteoarthritis and rheumatoid arthritis involve inflammation of the joints. Several new drugs for rheumatoid arthritis, which in the main affects younger persons, have been tried in recent years, but there has been no breakthrough. A blood test for this type of arthritis has been developed. It can be made in a few minutes in the doctor's office. Aspirin is the most commonly prescribed drug in the treatment of osteoarthritis, which afflicts older persons. Corrective exercises and physiotherapy are also helpful in relieving pain.

Cancer. As in the case of tuberculosis, early detection today offers the best hope for the cancer victim, for many cancers can be cured in their early stages. Cancer of the blood, leukemia, is being arrested and life prolonged through the use of radiation, chemicals, and antibiotics, but the disease today cannot be cured.

In cancer research the quest for a cancer-producing virus continues, although there is no solid proof that a virus produces cancer in human beings. In animal experimentation certain types of cancer have been induced by the introduction of viruses. If a cancer-causing virus can be isolated, preventive immunization would be a distinct possibility. The smear test for the early detection of uterine cancer is so simple and reliable that doctors urge it on all women.

Medical Emergencies. Medical societies throughout the United States have been busy organizing a service that enables people to get prompt medical attention in an emergency. This service is now available to more than half the population. These lucky people will no longer have difficulties in finding a doctor who is free to come in the middle of the night or on a Sunday afternoon. One telephone call serves to bring medical help to the scene of crisis immediately. The service consists of a physicians' exchange which operates 24 hours every day. A panel of doctors, mostly young ones just starting practice, handle most of the emergency calls in the areas where this service exists. All you need is the

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number (which Information will provide) to get the service. Within ten minutes a doctor will have called you, heard the details, given advice, and started on his way to your home.

New Cold Remedy? The conquest of the common cold may have come a little nearer in 1958. Vaccines to ward off several types of respiratory infections, including influenza, have been in use for some years. Now a preparation containing eight different vaccines has been developed by virologists at Notre Dame University and at the U. S. Institutes of Health at Bethesda, Md.

The experimental vaccine was tried out in October on 2,600 students at the University of Notre Dame, South Bend, Indiana. Actually, only about two-thirds of this number received the shots. The others received a placebo—a sterile solution. Neither students nor doctors knew who received the real shots. For a year records will be kept of the students' colds, grippes, and influenzas. At the end of the year there should be a report on the success—or lack of it—of this study. A similar experiment with this eight-ply vaccine is being carried out among the employees of the Bell Telephone Company in St. Louis. The Common Cold Foundation is helping finance the studies.

SELMAN ABRAHAM WAKSMAN, director of the Rutgers Institute of Microbiology, retired in 1958. He is the man who gave the word antibiotics its modern meaning. For his discovery of streptomycin this Ukranian-born scientist won the Nobel prize in 1952. Microbes, especially those that inhabit the soil, have been Waksman's consuming interest, and his autobiography is called *My Life With Microbes*.

MENTAL ILLNESS

DISTURBED CHILDREN can be helped—and cured—by wise therapy. Their activities and expressions at play offer clues to tangled emotional stresses and hidden conflicts.

State Hospitals. The first nation-wide decrease in the number of state mental hospital patients occurred in 1956. This decrease was remarkable because 1956 was a record year for admissions. These facts would seem to indicate that the newer techniques in treating mental illness are proving successful. This optimism will be justified only if the quick "cures" are permanent.

The cost of mental illness in the United States has been estimated at two billion dollars annually. In 1945 the average daily expenditure on each mental patient was $1.06. In 1956, it had risen to $3.26. This latter figure, however, is extremely low in comparison with the Veterans Administration expenditure of $8.00 per day

"We believe that psychiatry has not only provided therapeutic aids for mental illness but it has delineated the goal of emotional maturity—the objective of a healthy personality. The psychologically mature and therefore mentally healthy person is able to deal constructively with reality at its worst; to find more satisfaction in giving than in receiving; to be relatively free from tensions and anxieties; to be a creative contributing person; to possess the ability to accept frustrations for future gain; and to learn to profit from experience. These, the psychiatrist believes, are some of the qualities of the mature person."

From an address by William C. Menninger, M.D.
Menninger School of Psychiatry,
Topeka, Kansas

on every mental patient.

Increased personnel accounts for a good deal of this higher cost. In 1945 there was one full-time employee for every 6.8 patients. The ratio is now one to 3.6. The number of trained psychiatric personnel has nearly doubled since 1945. Psychologists have increased 574 per cent; social and field workers, 221 per cent; graduate nurses 153 per cent, and other nurses and attendants 133 per cent. There is still an acute shortage of psychiatrists in the state institutions. The continuing lack of adequate personnel and facilities is a factor that discourages them from entering this field. A majority of the established psychiatrists prefer to practice in cities, where they treat neurotics (instead of psychotics) by psychoanalysis or other approved techniques.

Most state mental institutions are today following a "balanced-treatment" program. The use of tranquilizer drugs is widespread, although excessive use is disapproved. The drugs make the patients more amenable to therapy, and this increases the need for medical personnel and recreational and occupational facilities.

An experiment involving the treatment of selected psychiatric patients with others in general hospitals is also being tried. The patient thus maintains contact with family, friends, and the family doctor. The community achieves a more realistic understanding and acceptance of emotional disorders. Also, the hospital personnel—internes, residents, and nurses—learn the importance of emotional factors in all types of illness.

Topeka State Hospital. There is wide variation among the states in their care and treatment of the mentally ill. Kansas has forged to the top of the list in recent years.

Due in part to the stimulus received from the Menninger Clinic and psychiatric training program, Topeka State Hospital is one of the most advanced institutions in the country. It is pointing the way to many new techniques and procedures, all of which increase costs, on a short-term basis. However, if thousands of persons are promptly cured and released, the new methods and more intensive therapies will have paid off.

Open Hospitals. In England and the United States, some mental hospitals are today operated as completely open institutions. Patients may spend the day in the hospital, receiving various forms of therapy, and return home at night. Others, who are able to work, go to a job during the day, returning to the hospital for evening therapy and sleep. The system avoids the complete break which life in an institution, usually far from home, brings.

One American psychiatrist is using regular work as therapy for some almost hopeless institutionalized cases of schizo-

MUSIC THERAPY is one of the psychiatric worker's most useful tools. Drums are an outlet for aggression as well as a medium for individual expression.

phrenia. The patients are forced to comply with a carefully regimented work schedule of room-cleaning, personal chores, furniture repair, clothes mending. The gradual resumption of responsibility and decrease of protection has improved the condition of many.

Surgery and Drugs. Of all kinds of mental illness, schizophrenia, a condition in which the patient withdraws from reality and lives in a world of fantasy and delusion has been considered the least curable. Lobotomy, a form of brain surgery, has been practiced in the recent past. Some physicians claim that it has helped schizophrenic patients to lead more nearly normal lives. Others oppose this drastic procedure. A British psychiatrist, A. A. Robin, has declared that it has no really curative effect. His opinion was based on a 15-year study of lobotomy in an English hospital.

The use of tranquilizing drugs has been helpful in paranoid schizophrenia (in which the deluded patient believes he is persecuted). The drugs, which give the patient periods of restful oblivion, are frequently combined with electric shock treatments. The shock treatments and drugs both have the effect of breaking up the recurrent compulsive patterns of thought and action.

Dr. Manfred Sakel, a Viennese physician, who came to the United States in 1936, was the originator of insulin shock treatments for schizophrenia. Many doctors agree that this offers relief for the disease. Dr. Sakel's theory is that since insulin is a natural body product it is acceptable to the body and stimulates the body's own self-regulatory defense mechanisms. He criticizes the miracle drugs, which are synthetic or foreign bodies that may have effects similar to insulin but are not permanently acceptable to the body.

The physical aspects of mental illness continue to be studied. The administering of certain chemicals which produced temporary insanity opened up a new field for exploration two or three years ago. One current project is to determine whether the constitution of the blood of the mentally ill person differs from that of the mentally healthy.

Preventive Measures. An official of the National Association for Mental Health recently made a number of suggestions that would help keep people from developing mental disorders (and often physical ones, too). There should be constructive work and goals to strive for, but these goals should be reasonable ones. A proper estimate of one's own abilities helps to avoid the two extremes: underestimation and overestimation, each of which will lead to aberrations of greater or lesser in-

CREATING THINGS, working with tools to make toys, for instance, is an excellent form of occupational therapy.

tensity. Thus a tolerant and realistic attitude toward oneself and others is to be cultivated. Trying to exert one's will power over the behavior of others is especially to be avoided. The sure signs of normality are the ability to love generously and to function productively. This naturally leads to respect for the interests, the comfort, the personality, of others, and to a generally satisfactory life.

Mental Health Week, observed annually in the United States, serves to broaden understanding of the causes of mental disorders and has made the public aware of some of the therapeutic and preventive techniques. The publications of the various mental health societies, state and national, have helped in the preventive work.

Other Constructive Trends. Certain trends are expected to continue in the next few years. More money will be spent in all sorts of ways. There will be more legislative support for programs to train psychiatric personnel; more money given to medical schools for expanded psychiatric training, higher salaries for psychiatrists in state institutions; more support for mental health clinics and similar psychiatric services in the community. Not only will the mentally ill be better cared for, but psychiatric research will be broadened. Many research projects will be supported by grants from the National Institutes of Health and private foundations. One interesting long-term project is a study of the types of family relationship that tend to create neuroses and psychoses—and the specific types of mental imbalance so induced.

Help from Lavmen. Gaining support from medical authorities is the lay movement whose aim is to make friendly contacts with institutionalized patients through visits, walks, and talks. Helping them to find a job and a place in the community when they are released is another constructive part of the program.

THE CASE CONFERENCE is an important part of the routine in a mental hospital. It brings together all personnel who have contact with the patient—psychiatrist, psychologist, social worker, occupational therapist, and nurses' aide. Through discussion, the direction of future therapy is decided upon. If the time for release is approaching, the patient himself may be present at such a conference. This picture shows a case conference at Topeka State Hospital.

Settling into the outside world is often extremely difficult. Members of the family may have become alienated. In some cases, the patient prefers a fresh start in new surroundings. When a sponsor can be found for a recovered patient, his integration into community life is speeded. Often the sponsor establishes contact some time before the patient is released. Certain religious groups have undertaken this work.

Continuing Need. In spite of a good deal of public awareness of mental illness, and in spite of improved therapies and more money spent on psychoanalysts' services and for institutional care, the need is not being met. A specialist estimates that only about ten per cent of psychoneuroses, emotional disorders, and disorders of behavior are today getting competent medical attention.

Twenty-five years ago: In January, 1933, Adolf Hitler became Chancellor of Germany.

A hundred years ago: In 1858, Benito Juarez established a free, liberal government in Mexico.

A hundred years ago: In 1858, the first mail sent by stage coach from St. Louis to San Francisco took 24 days for delivery.

Twenty-five years ago: In 1933, Wiley Post made the first solo round-the-world flight in a Lockheed Vega, traveling 15,596 miles in 7 days, 18 hours, 49½ minutes.

A hundred years ago: Italy's movement for national unity under Mazzini and Cavour was nearing success in 1858.

MEXICO

THE PAN AMERICAN HIGHWAY continues to beckon tourists to explore Mexico.

Peace Below the Border. The quiet progress made by Mexico during the past generation is in sharp contrast to the revolutionary disturbances of the opening years of this century, when guerrilla fighting seemed to be the people's normal routine. Today news from Mexico rarely

MEXICAN FOOD is a pleasure to eye and palate. This market with its bright fruits and vegetables is typical. The basic Indian food is the cornmeal pancake known as the *tortilla*.

makes the front page. It may be read, instead, in the financial pages where details of oil and mineral production, figures on the export of cotton and sisal, and currency values are to be found. A good deal of information about Mexico is also to be read in the travel sections of the newspapers. Although trade and travel, new schools, new roads, irrigation systems, and power plants may not be recorded in big headlines, these are evidences of a healthy, expanding economy.

From 1945 to 1956 industrial production increased more than 70 per cent. The United Nations Economic Commission for Latin America predicted that Mexico's per capita income, which went up more than 30 per cent in the past ten years, will rise another 25 per cent in the next ten years. It is still very low: only $169 per capita annually.

Thus the great mass of the people—especially those in the remote rural districts—continue to live in poverty. Today only about 15 to 20 per cent of the population of nearly 26,000,000 enjoy a comfortable standard of living. Their plight is gradually improving. Mexicans are hard-working and unaccustomed to luxuries, and can withstand economic stresses better than more prosperous peoples. Although the Mexican export market was badly hit by the 1958 recession in the United States, when prices for copper, coffee, lead and zinc, dropped, the general condition of the country continued to be good.

While Mexico is becoming increasingly self-sufficient, its imports still far outbalance its exports, and most of them come from the United States—just under a billion dollars' worth in 1957. The

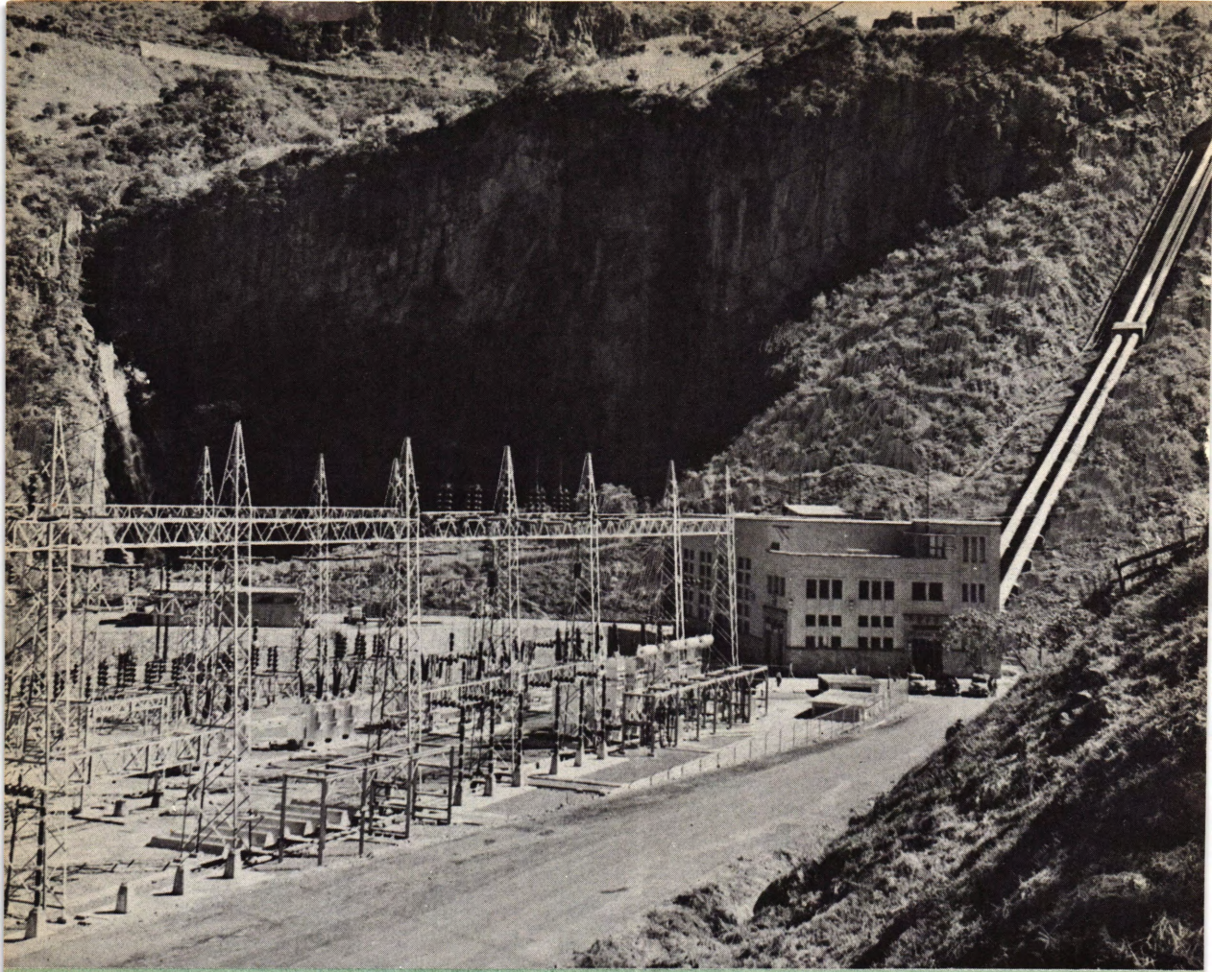
United States purchased less than half that amount of Mexican goods and services. One American import is Mexican labor. Mexican workers are imported for varying periods for seasonal work in the cotton, fruit, and vegetable fields of California and the Southwest. In 1957 there were 450,000 of them and they sent home earnings averaging about $75 each.

Basic Changes. Certain basic changes have occurred in Mexico in the recent past. The most noteworthy has been the change from civil war to political stability. For decades, armed insurrections kept the civil government in a state of chaos. The life of every politico was uncertain because an ambitious general could overthrow a regime by force. Some dictators and presidents obtained security in office by buying off the generals. Through the strengthening of the central government by several able presidents, the power of the military is no longer a threat.

Another change has to do with land tenure. For three hundred years Mexico had a colonial economy, dependent on the sale of raw materials abroad and the purchase abroad of industrial products. The arable land was in the hands of a few great landowners. The discontent of the peasants finally led to the revolution of 1910, under Zapata, with his slogan of Land and Freedom. This marked the beginning of the break-up of the estates and the transfer of the land—first to local communes, then to individual farmers for cultivation.

Disestablishment. A third event of far-reaching importance was the separation of church and state by the constitution of 1917. To deprive the Roman Catholic Church of the property and prerogatives enjoyed ever since the Spanish conquest was a harsh and drastic act. In former times, the church prelates, like the generals, wielded political power. Now all church property is regarded as belonging to the state, although the church is still in possession. The bitter anti-clericalism and church burning of the revolutionary years is a closed chapter in Mexican history. Recent governments are not only tolerant but appreciative of the Church's religious, humanitarian, and educational work. The various Catholic teaching orders conduct a number of good schools. The great mass of the people are communicants of this faith, expressed in a

OLD SPAIN is suggested in the costume of this Tehuana girl of Oaxaca province, Mexico.



HYDROELECTRIC PLANTS, built by the government with foreign aid, are increasing Mexico's available power and helping in the development of new industries.

variety of practices which may not always be strictly orthodox. In many places the religion is a mixture of Christianity with earlier pagan beliefs. The Protestant churches have about 900,000 members.

Oil Business. Still another basic change has to do with foreign capital. Twenty years ago Mexico thought its troubles were due mainly to the "foreign capitalists," who were exploiting its resources. At this time the foreign-owned oil properties were expropriated, an act which brought charges of communism. Since 1938 the oil industry has been controlled by a non-profit organization, Pemex, under government control. The business has been unprofitable, in fact, a major headache. Production, however, is now climbing, and many new oil fields are being opened up. Lack of refineries forces Mexico to export crude oil and import kerosene and gasoline.

Mexico's other great natural resource is its mineral wealth. The mines continue to be owned and controlled by foreign companies, and there is little pressure on the government to take them over. In fact, Mexico is encouraging foreign capital to invest, and help develop its resources further.

Education. In the field of education Mexico has moved forward rapidly. From a country of illiterates, where only the clergy and a few rich people (mainly

educated abroad) could read and write, Mexico has become a land of schools. Since 1917, there has been a program of free public education. The village school has more than book learning to offer: it is also a health center, a place for showing moving pictures, and for agricultural agents to teach new ways of farming. There are three and a half million children in Mexican kindergartens and primary schools, 86,000 in secondary schools, and 55,000 in colleges and universities. Of the 14 institutions of higher learning, the most important is the National University in Mexico City, built in 1551 by order of Charles V of Spain. Although it was the first university to flourish on this continent, its spectacular new buildings make it impressively modern. It has 25,000 students, about one-sixth of whom are women.

Educational authorities in Mexico are now trying to reach the country's illiterate Indians. As an initial project, teachers will broadcast simultaneously to classes in 41 specially built schools in the state of Oaxaca. The schools will also have blackboards, books, and local instructors who understand both the local dialect and Spanish. It is estimated that about 3,000,000 Indians do not speak Spanish. The Mexican army is also helping to combat illiteracy within its ranks by the establishment of 165 regimental schools. Today Mexico spends more on its schools than on its defense program.

Agriculture. Mexico is regarded as an agricultural country, yet only 9 per cent of its land is arable. With but 17,000,000 acres now under cultivation, most of it irrigated land, Mexico must import some foodstuffs. There are plans to put another 7,000,000 acres under irrigation. One formerly arid region that has been turned into rich farmland is the stretch from the Arizona border south to Guadalajara. The waters of the river rushing down from the Sierra Madre mountains have been impounded to provide irrigation for plains that once grew mainly cactus and sagebrush. The Yaqui River valley produces cotton, fruits, sugar cane, vegetables and fruits, including oranges and dates. The whole of Mexico's northwest is experiencing rapid agricultural and industrial growth, and the two ports, Guaymas and Mazatlan, are expanding. Frozen shrimp is an important export from these ports. Fruits and vegetables are exported to the United States. Of Mexico's cultivated land, 66 per cent is in grains—55 per cent in corn and 9 per cent in wheat. In general, Mexico's grain production per acre is low, at only 10.7 bushels of corn, in comparison to the United States average of 46.8 bushels. Expansion of the corn crop—for this nation of tamale-eaters—is the great agricultural aim. In many parts of Mexico, work in soil conservation has been started. This includes contour plowing, terracing, crop rotation and reforestation. Reckless lumbering has destroyed important stands of timber on watersheds, causing floods and erosion. Federal legislation has now stopped this and a chain of national forests, where timber cutting is regulated, have been established.

The Yucatan peninsula in the southeast produces 50 per cent of the world's supply of sisal, known locally as henequin. Other important export crops of the region are tobacco, chick peas, cotton, bananas, coffee, and timber.

Industry. Mining is Mexico's most important industry. Its output of silver is 97 per cent of the world's production. The country has large coal resources, including coking coal, and also reserves of iron ore. The production of iron and steel has increased steadily, as has production of chemicals and fertilizer. More than a million tons of steel were produced in 1958. Cement production has nearly trebled in the past ten years. Copper, lead, zinc, antimony, and tungsten are export-

FOUR-STORY LOBBY of the Hotel del Prado, one of Mexico City's more luxurious hostelries. Lucite hand railings on the broad staircases and thick handwoven carpets are admired features. Mexico offers all types of accommodations for the tourist.

ed, largely to the United States. Mexico is turning out much of its own consumer goods, its railroad tracks, and light machinery.

People. Fifteen per cent of Mexico's people are white; 55 per cent mestizos or those of mixed blood, and 29 per cent Indians. Most of the Indians and many of the mestizos have little share in government. There are many different language groups, and a wide variety in local customs. The traditional diet of beans, corn, chili peppers, rice, fruit, and a little meat is almost universal. The average intake per day is only 2210 calories, as compared with 3200 for the people of the United States. Malnutrition and disease are common among the rural population. In general, the people of the towns and cities are better fed and clothed. Throughout Mexico there is respect and appreciation for the artist and craftsman. The ancient handcrafts of weaving, lacquering, glass blowing, pottery and basket making, and work in silver and leather are widely practiced. Painting and weaving in feathers is an original Mexican art, which in pre-Conquest times was on a level with other fine arts. Artists still work in this medium, creating wall hangings that are like brilliant mosaics. These varied products form an important export item, and an attraction for tourists.

Tourism. Receiving visitors is one of Mexico's important industries. Tourism, called "the smokeless industry," has brought in half a billion dollars a year in recent years. Virtually all visitors want to return, which is sufficient proof of their enjoyment of Mexico's fiestas, scenic beauties, archeological wonders, delightful climate, and amiable people. Accommodations in all price ranges, good bus and guide service, and plenty of attractive and inexpensive merchandise combine to make Mexico an ideal vacation place.

Politics and Government. Mexico is a federal republic, with a democratic constitution, and a good deal of socialism in its institutions. It clings to the dictatorial pattern of former times as far as leadership is concerned. The president, aided by a small coterie, holds enormous power. He is unquestionably the big boss, but unless his regime is flagrantly corrupt, his authority is not resented. There are free elections and a free press.

The official party, P.R.I., the "party of revolutionary institutions," is rich and powerful, with all government employees contributing to its coffers. Other parties exist, but are too weak to carry many votes. The left-wing Popular Party, led by Toledano, has about 50,000 members;

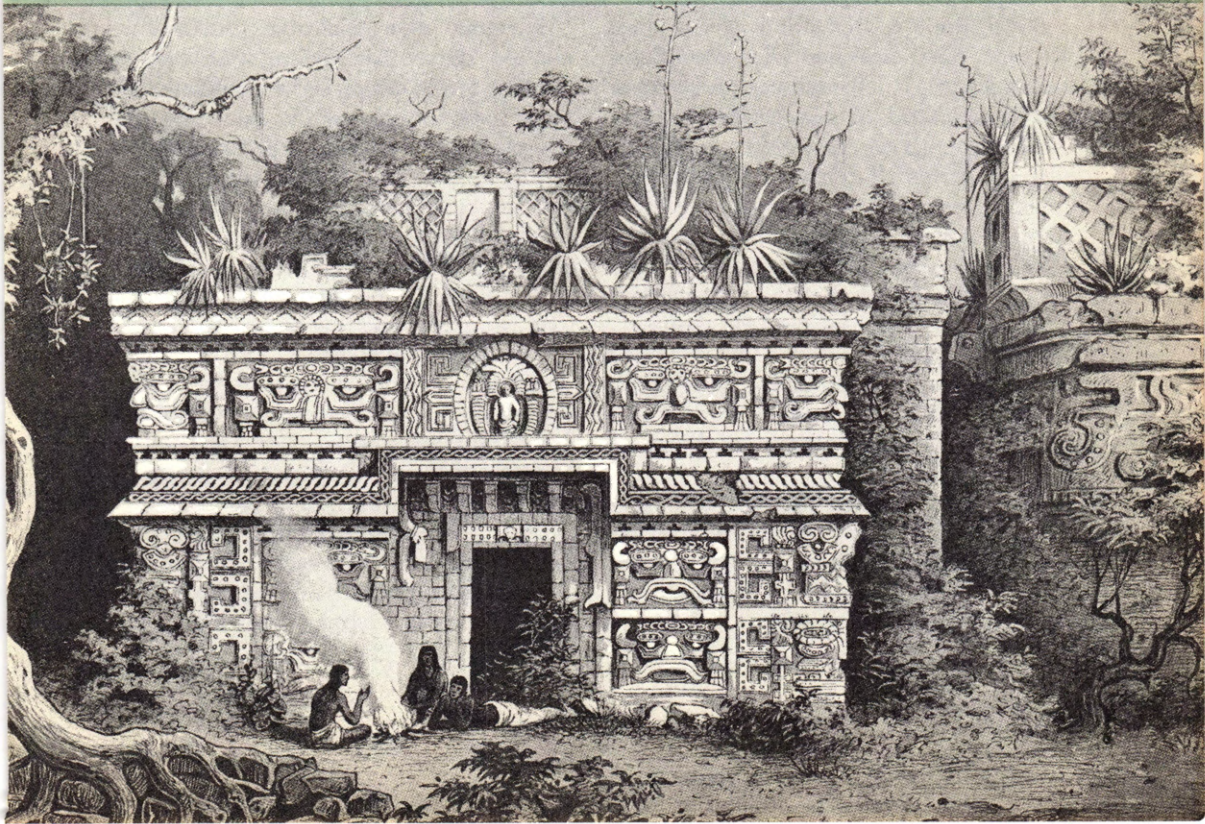
the Communist Party about 5,000, although its influence is greater than this small number of adherents would indicate. Communists occupy some key positions in the government in labor, the arts, and education. The Soviet Union maintains a large official and unofficial staff in Mexico. At present it is building up trade and trying to establish good relations in other ways.

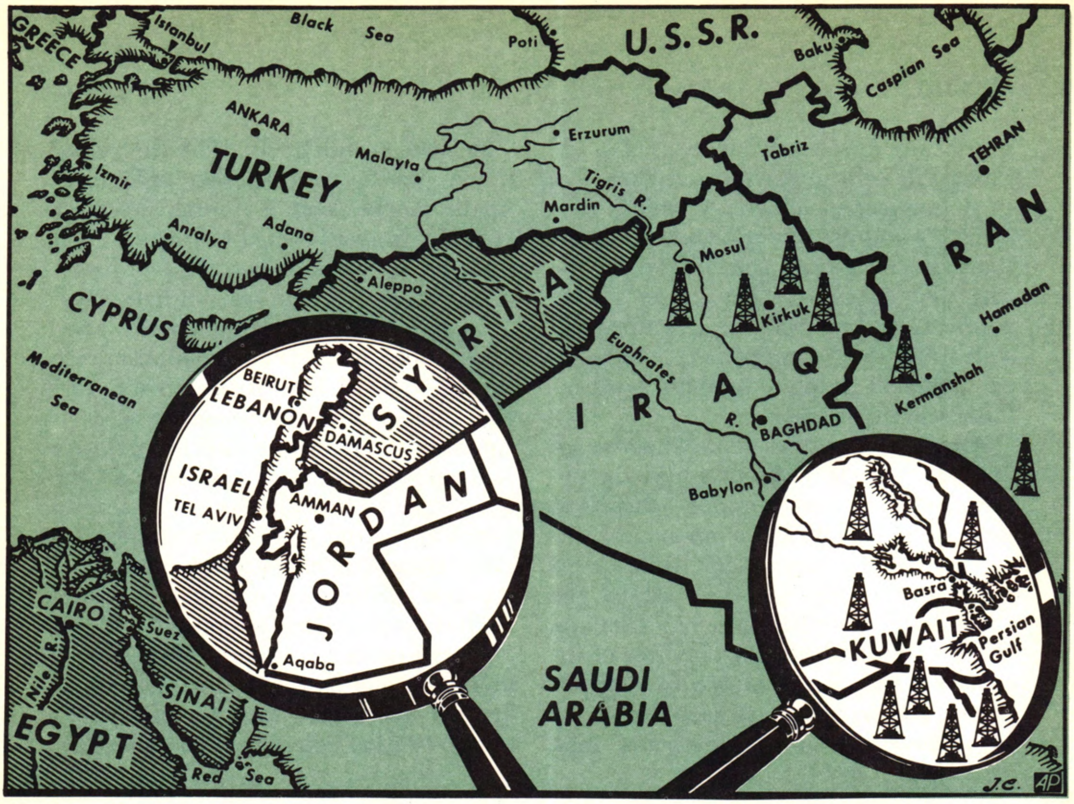
After a series of presidents who, though able and enlightened, continued the old system of graft and patronage, there was loud clamor in 1952 for an honest, incorruptible president. Adolf Ruiz Cortinez was the man put forward by the P.R.I. His administration has been an efficient, forward-looking one, free of the taint of corruption. He has carried on the power and irrigation projects begun by his predecessors, and initiated new ones.

A New President. In 1958 the ruling clique put forward another able man, Adolfo Lopez Mateos, former secretary of labor. He was elected in July and will serve for six years. It was the first Mexican election in which women had voted.

In spite of his connection with labor, Lopez does not disdain capitalism. He expects to make Mexico attractive to foreign investors — Europeans as well as Americans. He wants the oil industry to remain nationalized, as well as the utilities and railroads. He will maintain the right to strike and other working class protections, and hopes to raise the living standard of the lower and middle classes. He has a reputation for honesty and fair play. His tastes run to classical music and literature, and he is respected in cultural fields. Lopez served as rector of a scientific institution before he entered politics.

CHICHEN ITZA, in south central Yucatan, flourished as a great center of Mayan culture for about 250 years. In the middle of the 15th century it was abandoned, suddenly and finally, and was quickly buried in jungle growth. This is an imaginative reconstruction of one of Chichen Itza's temples.





MIDDLE EAST

Definition. No definition of the term "Middle East" satisfies all geographers. As used here, it will denote the lands at the eastern end of the Mediterranean, including both western Asia and northeastern Africa. Turkey and Israel are parts of this area, but we shall omit those countries from consideration and limit our attention to the Moslem nations and peoples, including Lebanon, which is about 50 per cent Moslem. The boundaries of the Middle East will be stretched somewhat to include Sudan, lying south of Egypt, since the greater part of this new African state belongs in the same cultural group.

Arab Nationalism. While Arab national consciousness has been growing rapidly, Arab leaders have not yet come to grips with the real problems — low wages, disease, and illiteracy.

Extreme and explosive unrest has marked the entire region, with one or another of the countries or sheikdoms almost continuously in the news. By the tenets of their religion, all Moslems are brothers, but their bickerings, quarrels, and fights in 1958 presented the picture of a most unhappy family. Into this hotpot of civil strife the West, particularly the United States, has poured money, food supplies, and military aid—partly to quench the dissension, partly to win these people and their leaders to our side in the great ideological battle of the day. A further positive aim has been to keep the Soviet Union out of the area. The attempt has been only partially successful. These people want help, but they do not want to be pushed into taking sides in the cold war. Their newly-formed governments are shaky and they need

TRIPOLI STREET FIGHTING. "A small war but a hot one" describes the civil strife in Lebanon during the spring and summer of 1958.

some years of peace to build the foundations of national existence more securely. It is possible that some of the events of 1958 helped to clear the way for a more constructive future.

U.A.R. The political union of Egypt and Syria, under the name of United Arab Republic, announced on Feb. 1 by the chief ministers of the two countries, was the first event of importance. Overnight, a new country, comprising Egypt's 23.5 million people and Syria's 4 million, came into being. The action was termed the first step in a union of all Arab nations, and others were invited to join. The cabinets of Egypt and Syria met in Cairo to agree on details of the merger, which provided for a democratic, presidential

FRONTIER GUARDS at the border between Lebanon and Syria try to prevent the smuggling of arms to the rebels.

form of government.

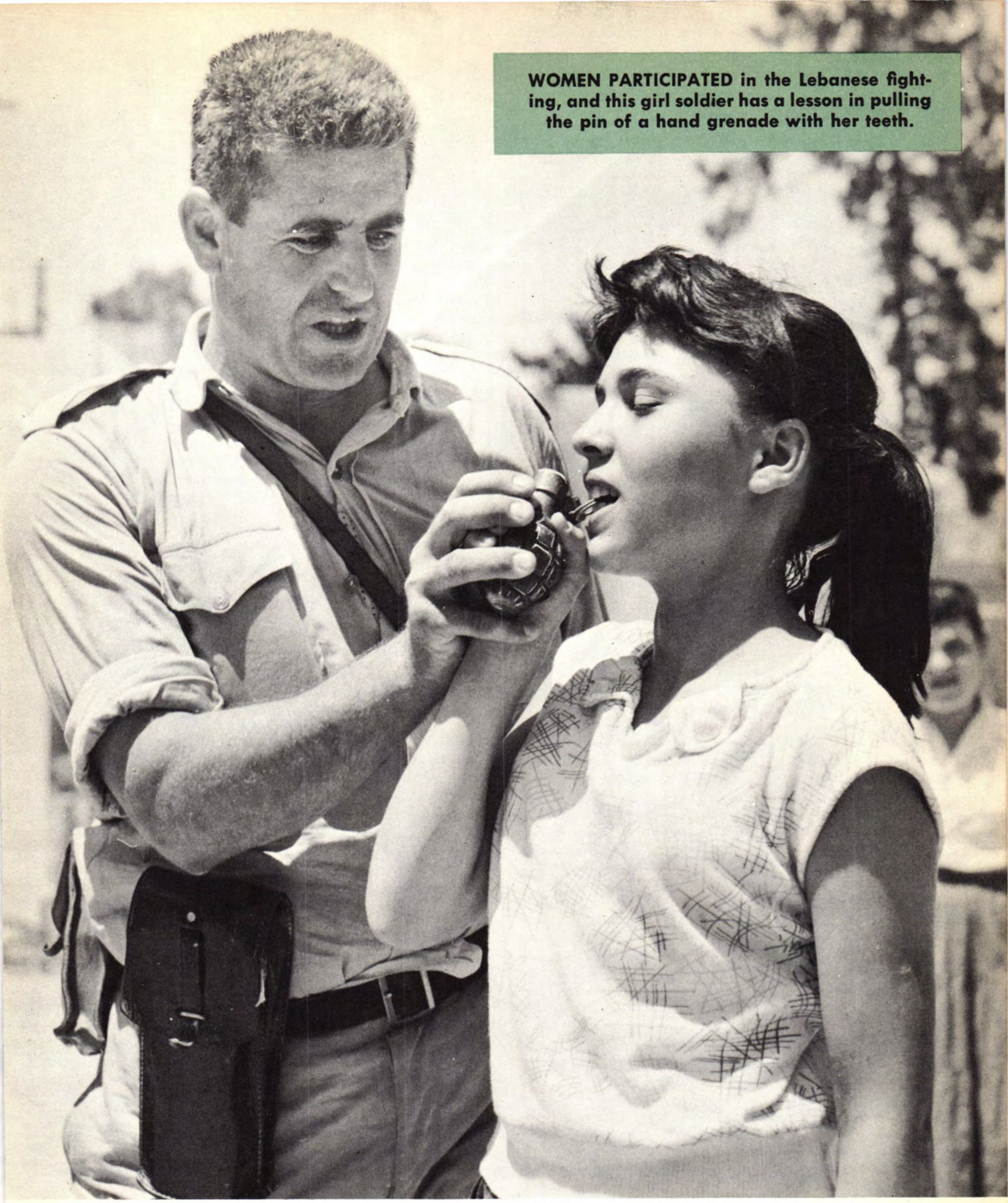
Talks of union had been carried on by top officials of the two countries for many months and had been freely mentioned in the press. Privately, plans may have been made much earlier. Economic factors seem to play a minor part in the union, since both are agricultural countries whose products are not complementary. Oil, politics, and religion are more likely elements. Both countries are poor, without oil yet with heavy dependence on the passage of oil. Egypt's revenues come from the tolls paid by ships, mainly tankers carrying oil from the Persian Gulf, and Syria's from the pipelines that cross the country from Iraq.

Another point in common is that both countries have lately emerged from colonial status, and have found that independence has meant rough going.

Although Egypt is a far poorer country than Syria, it was at once apparent that Egypt's Prime Minister Nasser, promptly elected president of U.A.R., would play the dominant role. This self-appointed leader of Moslems has a great following. Every Arab has heard of him. Although he hasn't done much for Egypt, he has done a little, and most Arab leaders have done less. Arabs know he is a dictator, but he is one of their own people. "Nasser knows best" seems to be a very popular sentiment.

Israel, lying uncomfortably in between, watched the development with concern. Syrian-Israeli border clashes in the Lake Huleh area where the Israelis were carrying on reclamation work were to occur repeatedly during the months that followed.

A few days after the union of Syria and Egypt, Cairo announced that the tiny Kingdom of Yemen, with a population of 5 million, lying at the extreme tip of the Arabian peninsula, would federate with the U.A.R. The agreement reportedly provided for Egyptian military and

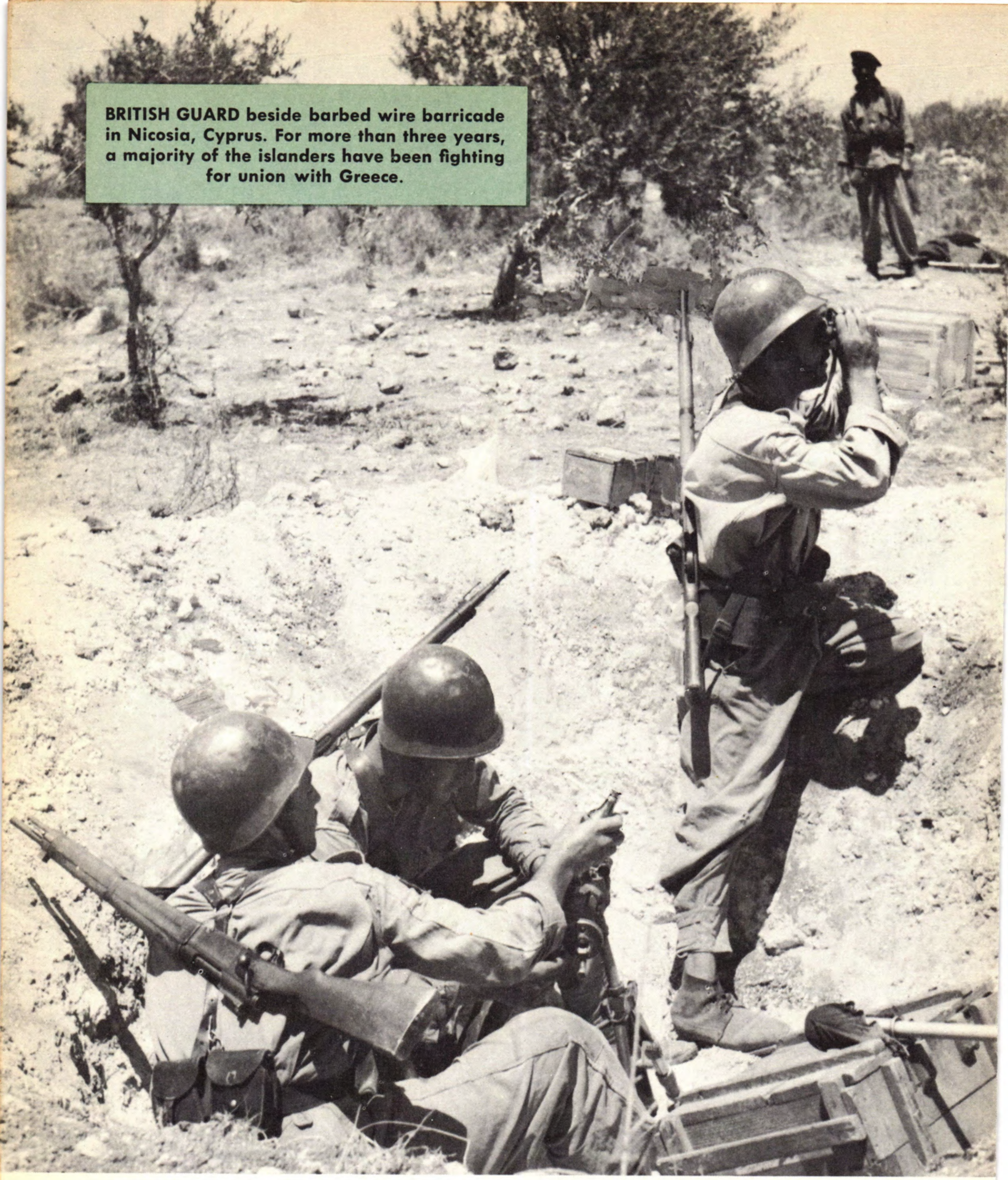


WOMEN PARTICIPATED in the Lebanese fighting, and this girl soldier has a lesson in pulling the pin of a hand grenade with her teeth.

economic aid for Yemen, which was to retain its own form of government, an absolute monarchy.

Nasser was successful in getting a number of Soviet submarines and contracted for the purchase of Soviet jet airliners for civilian use. He made an 18-day visit to the Soviet Union.

In a filmed interview for Columbia Broadcasting System, Nasser declared



BRITISH GUARD beside barbed wire barricade in Nicosia, Cyprus. For more than three years, a majority of the islanders have been fighting for union with Greece.

that although he was grateful for Soviet aid, the U.A.R. was anti-Communist and that he would continue to suppress the Communist party.

A Suez settlement was signed, with compensation paid to the former Universal Suez Canal Company. Eugene R. Black, of the World Bank, praised Egypt for its competent operation of the canal since taking it over in 1956.

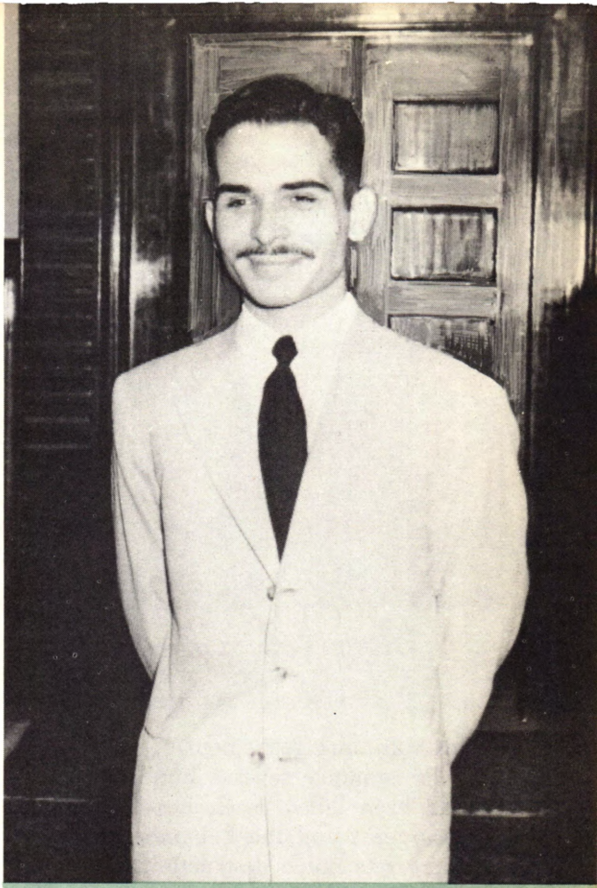
MIDDLE EAST

A boundary dispute broke out between Sudan and Egypt, and this dissension was to recur later in the year. There were also rumors of plots and counter-plots involving Jordan and the Syrian province of U.A.R.

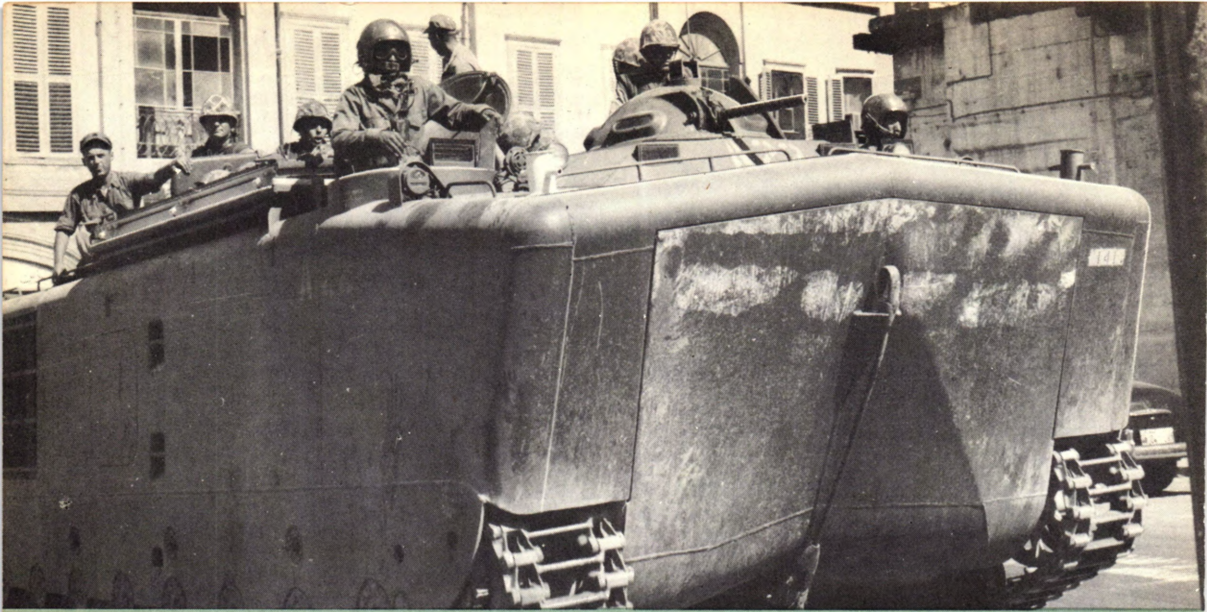
Another Merger. On Feb. 14, the Hashemite Kingdoms of Jordan and Iraq proclaimed the establishment of the Arab Federal State. The joining of these two pro-Western Middle East countries provided a counterweight to the Nasser federation. The pact eliminated the frontier between them. It left King Hussein of Jordan and King Faisal of Iraq, cousins, on their respective thrones. King Faisal, slightly older, was to be head ruler with war-and-peacemaking powers. A constitution was to be promulgated within three months. Nasser hailed the federation as a further step toward Arab unity, but at the same time Cairo broadcasts were bringing constant pressure on Iraq to withdraw from the Western-dominated Baghdad pact. The new union created a nation of nearly 7 million—5.2 million Iraqis and 1.5 million Jordanians—750,000 of them refuges from the Palestine area which Jordan had seized in the Israeli-Arab war of 1948.

Saudi Arabia. It was reported that King Saud of Saudi Arabia looked with disfavor on Nasser's growing power. The Cairo radio countered by announcing that Saud had plotted Nasser's overthrow. Not long afterward King Saud went into virtual retirement, yielding his power to his brother, Crown Prince Faisal, who became prime minister and foreign minister. The transfer of power was accompanied by changes making for a more liberal form of government. It was looked upon as a victory for Nasser, since the Crown Prince was more favorably inclined toward the U.A.R.

Lebanon. Meanwhile anti-government outbreaks were increasing in Lebanon, whose pro-Western President Camille Chamoun was serving the last few months of his term of office. The election of a new president was scheduled for September. The dissidents were Druse tribesmen, led by Kemal Jumblatt, and Moslems, all accused of being pro-U.A.R., and of receiving arms smuggled across the Syrian border. In May the Lebanese government appealed to the United Nations Security Council for help in keeping out infiltrators, and also lodged a complaint with the Arab League. Charles Malik of Lebanon charged at the U.N. that the U.A.R. was trying to overthrow the government, while Omar Loufti of Egypt replied that Lebanon's troubles were purely internal. Within Lebanon the pressure against Chamoun was steadily building up, and the heads of the Maronite (Christian) Church asked for



JORDAN'S KING HUSSEIN, still on his shaky throne at the year's end.



U. S. MARINES landed in Lebanon in July, and here an amphibious truck makes its way through the narrow streets of Beirut.

his voluntary retirement.

By summer several hundred persons had been killed in clashes between the insurgents and the Lebanese army, and there was much destruction in property in Beirut, Tripoli, and other towns. The Lebanese army was directed to force a showdown with the rebels but was ineffectual in putting down the disorders.

The growing intensity of the civil war prompted the United Nations to take action. An observation team, whose members were drawn from other points in the Middle East, was flown to Lebanon, and U.N. General Secretary Dag Hammarskjold also made several trips there. The U.N. team soon reached its full strength of 100 and set up regular patrols along the Syrian border. First reports expressed doubts of U.A.R. infiltration or intervention.

Iraqi Coup. On July 14, the Iraqi government was overthrown in a bloody military coup, in which King Faisal, pro-Western Premier Nuri as-Said, and other government officials were killed. The full story was not immediately told, but the new rulers declared that the violence was unpremeditated, and that the Baghdad mob got out of control for some hours, during which the royal palace was sacked, the British embassy sacked and burned, and a number of bystanders, including Americans, were slain.

The rebellious army officers announced the formation of a republican council of state, broadcast appeals for public support, and the return of order. They claimed to have liberated the country from the domination of a dishonest group "which was installed by imperialism to lull the people." Despite the violence of its beginnings, the new regime was quickly recognized by major countries, including the United States and Britain. It gave explicit promises about the continued production and flow of oil. Steps were taken to prepare a republican constitution and to eliminate the corrupt tribal system of justice.

Marines Landed. The day after the Iraqi coup, 3,000 U. S. Marines were landed on the beaches of Lebanon, at the request of President Chamoun, who evidently feared a similar happening in his country. President Eisenhower in a special message to Congress said that the action had been taken "to protect Ameri-

can lives" and "to assist the government of Lebanon in the preservation of Lebanon's territorial integrity and independence which have been deemed vital to U. S. national interests and world peace." The President further explained the American position in a nationwide broadcast. The action was denounced in the Communist press and by the Soviet bloc at the United Nations.

Jordan. On July 17, 2,000 British paratroopers were flown into Jordan at the request of King Hussein. There was a strong likelihood that this shaky little country was facing extinction.

The United States enlarged its beachhead in Lebanon by landing Army units and more Marines. Some came from the Sixth Fleet stationed offshore and others were flown in from various European bases. At their peak, U. S. troops numbered 14,300.

At the United Nations. The Lebanese situation was discussed at the United Nations, with President Eisenhower, Secretary Hammarskjold, and the Arab nations themselves presenting various plans for preserving peace. The President explained U. S. motives, then called for the creation of a stand-by United Nations peace force to be available to help menaced states "resist armed pressure and infiltration coming across their borders."

The Arab states urged immediate withdrawal of foreign forces, and assistance in creating an Arab development institution designed to further the economic growth of these countries.

In mid-August the United States made a token withdrawal of troops to ease tension. All forces were withdrawn by the end of October, and Great Britain pulled its paratroopers out of Jordan soon after.

Meanwhile, although a new president —Gen. Fuad Chehab—had been elected in Lebanon, violence continued. It was the "outs" against the "ins." But after a time, with the formation of a compromise cabinet by Premier Karami, peace reigned in Lebanon. The country will receive a considerable amount of U. S. economic aid. During the year, the U. S. had contributed $5 million wheat and $3.5 million in arms.

Later Happenings. In October, Tunisia broke off all relations with the U.A.R. on grounds that the latter was meddling in Tunisian affairs and attempting to dominate other Arab countries. Tunisian President Habib Bourguiba is pro-Western and has stated that he will remain so. Tunisia's neighbor, Algeria, on the other hand, set up a government-in-exile in Cairo, reportedly aided by the Arab League.

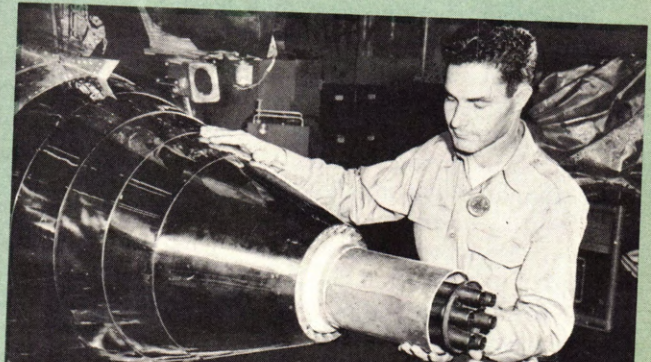
A small but significant event occurred in November, when King Hussein, leaving his country by plane for a short vacation in Europe, suddenly returned to Amman, declaring that the plane had been "attacked" while flying over Syria by U.A.R. jets. Formal denials were made by the U.A.R.

Sudanese Coup. Gen. Ibrahim Abboud, Commander in Chief of the Sudanese army, seized control of the government on November 17, in a peaceful coup. The turn-over was, reportedly, carried out with the co-operation of the prime minister, Abdullah Khalil. It also won the endorsement of the revered leaders of the two main Moslem sects.

Basically, the event was precipitated by economic problems, chief of which was a loss of cotton markets. Another cause was Sudanese-Egyptian tension over the division of the Nile River waters through the construction by Egypt of Aswan High Dam. The Soviet Union has offered to loan Egypt $100,000,000 for preliminary work on the dam. For work beyond that phase, Sudan insists that a Sudanese-Egyptian agreement must be reached. Nasser, however, was not accused of any complicity in the change of government in Sudan.

U. S. AIR FORCE'S SNARK, above left, soon after leaving launching pad at Cape Canaveral. Above, this intercontinental cruise missile moves slowly from its hangar. The Snark unit is composed of Strategic Air Command volunteers.

ROCKET-POWERED "jump belt," left, is a new military device enabling a soldier to vault distances up to 20 feet.



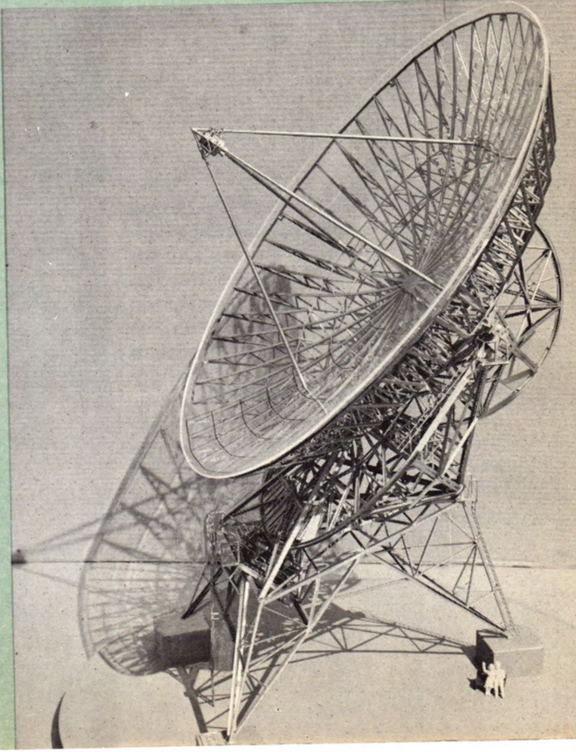
SUPERSONIC STINGER, which can fire 7,000 rounds a minute, is being turned out by Convair for the Air Force's B-58 bomber.

MILITARY DEFENSE

SIDEWINDER GUIDED MISSILES are installed in the wingtips of this new F-104A Starfighter. The missiles use an infrared tracking device to reach their targets.

AMPHIBIOUS HELICOPTER as it takes off from the surface of the Delaware River. The principle is to submerge the watertight belly of the frame and buoy it up with floats.

HELMET RADIO, below, developed by the U. S. Army Signal Corps is designed to use the sun's rays to obtain all the power needed to operate both transmitter and receiver.

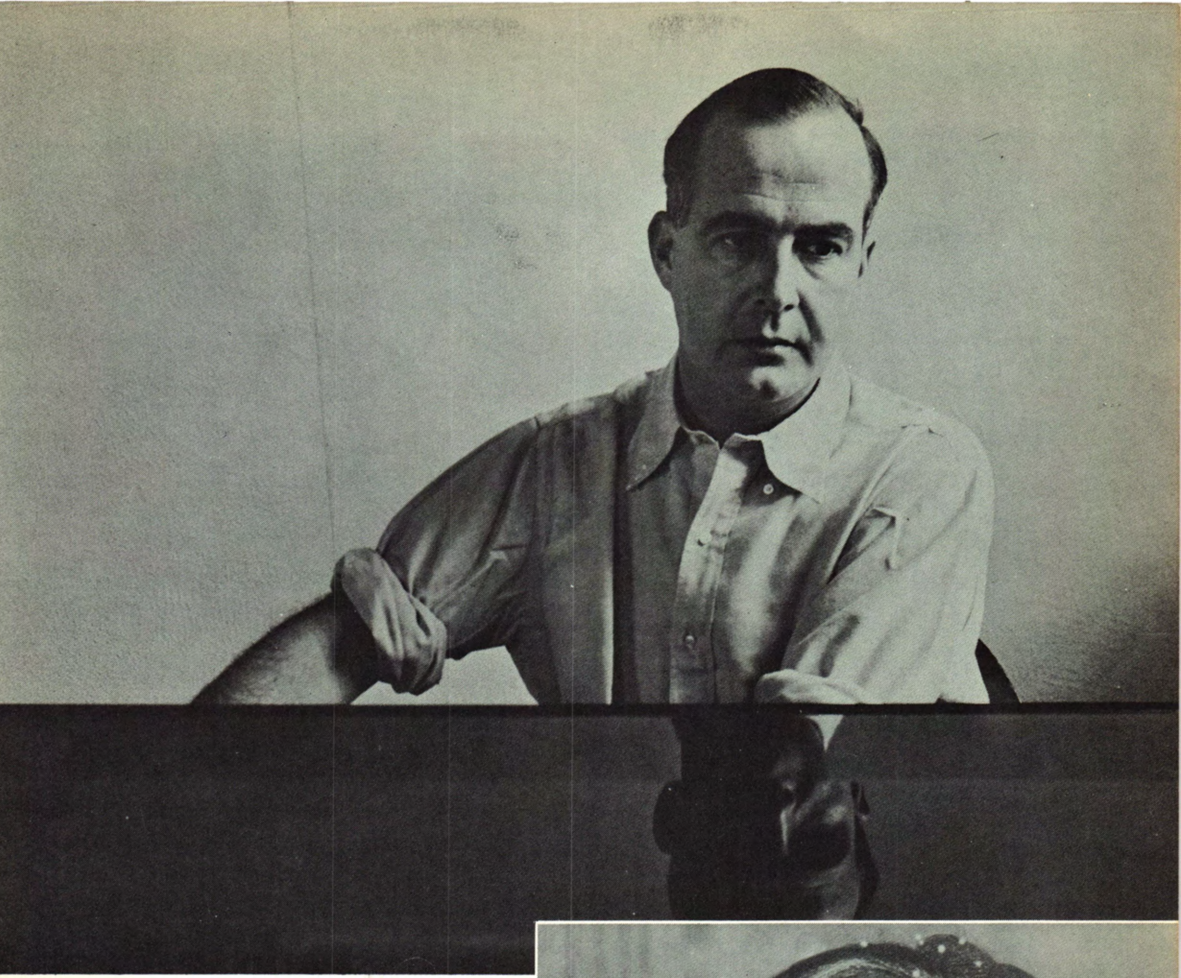


TRACKING FACILITY MODEL, recently constructed near Death Valley, Cal. Although it resembles a radio telescope, the "big dish" antenna—85 feet in diameter and 110 feet high—is designed and built to track and communicate with space vehicles.

Music

LEONARD BERNSTEIN has been called the most versatile musical talent of the times. As a composer he writes serious symphonic music as well as musical comedies. Among the latter are "Fancy Free" and "Wonderful Town." He is also known as a fine teacher, lecturer, and pianist. In 1958, at 40, Bernstein became musical director of the New York Philharmonic Orchestra. He was co-conductor of that great musical organization on its successful 7-week South American tour.

VAN CLIBURN, a 23-year-old Texan, is the newest musical prodigy to appear in the United States. On his return from Moscow, where he won first honors in the international Tchaikovsky piano competition, he was given a ticker tape welcome in New York City and many other honors were heaped upon him. Four years earlier, recognition of his remarkable gifts had brought him the Levintritt Award. A dedicated musician, unspoiled by success, Cliburn will continue to delight the audiences of the world.



SAMUEL BARBER started composing at the age of 7. His early efforts were followed by a long period of musical training and apprenticeship. His compositions have been performed by many American and European orchestras and have been widely broadcast. His first opera, "Vanessa," for which his colleague Gian-Carlo Menotti wrote the libretto, was produced in 1958.

MARIA MENEGHINI CALLAS, Italian opera prima donna, has a fiery temperament along with her lovely voice. Her stormy disputes with managers and critics in Rome, Dallas, and New York City found their way into the news columns.

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NAUTILUS

Under the Pole. Easily the most daring ocean exploit of the decade was the passage of the atomic submarine *Nautilus* under the North Pole in August, 1958. Complete secrecy surrounded this bold undertaking, and when the announcement came it had the tremendous impact of mingled surprise and wonder. Citizens of the United States were proud indeed: it was their ship and their men that had accomplished the fantastic, seemingly impossible feat. No voyage of discovery of the past was more worthy of admiration than the historic passage of the *Nautilus* underneath the polar ice. It captured the imagination of old and young.

The atomic submarine left Pearl Harbor on July 23rd, and on August 1 submerged off Point Barrow, Alaska, then sailed under the polar ice-cap for 96 hours. On August 3, the ship's log recorded that the *Nautilus* was passing underneath the North Pole. The submarine surfaced August 5 in the Atlantic between Spitzbergen and Greenland. On August 8, the achievement was made public and the commander of the *Nautilus*, William Robert Anderson, was flown to Washington for a White House ceremony at which he received the Legion of Merit. The crew of 116 received the first Presidential Unit Citation ever issued in time of peace. Commander Anderson returned to the *Nautilus* which then continued across the Atlantic, to be received with wild enthusiasm at Portland, England.

Record Crossing. On her voyage from England to New York the *Nautilus* made another record, this time for the speediest submarine crossing of the Atlantic. She made the trip in seven days less five minutes, surfacing for only 72 of the 3,150 miles. In New York, another tremendous reception awaited the ship and her crew. Admiral Hyman G. Rickover, the nation's leading expert on nuclear ship propulsion, boarded the ship before she reached

COMM. WILLIAM ANDERSON, skipper of the *Nautilus*, first sub to pass under the Pole, on arrival at Brooklyn Navy Yard.

SUBMARINE NAUTILUS, with officers and men on deck, as it passed under Brooklyn Bridge, en route for its New York welcome.

New York harbor, and was warmly acclaimed in the reception which followed. Rickover, who headed the development of the atomic submarine, had unfortunately been overlooked at the Washington ceremonies.

The crew of the *Nautilus,* matter-of-fact, hard-working fellows, were a little astonished at being considered heroes. They had endured no hardships and had encountered no perils. According to the reports of the commander and members of the crew, the voyage had gone like clockwork. "We never had any dangerous situation, not even minor troubles," said one crewman. "It seemed like the ship herself wanted to make the trip."

Life in a submarine, once you get used to having no windows to look out of, is practically free of physical strain. A sub does not rock and roll so there is no seasickness. Air-conditioning provides fresh clean air to breathe, keeps the humidity at the correct level, and the temperature at an even 72 degrees. Throughout the voyage the men were served fresh meat,

vegetables, and milk. Sleeping quarters were comfortable and there was entertainment. "Like a club car on a good train," said one.

The perfect functioning of the *Nautilus* and the successful accomplishment of its mission was no accident or miracle. The crew members were picked for character as well as for their training and knowledge of navigation, electronics, nuclear physics, and other scientific specialties. Commander Anderson was thoroughly experienced in submarine navigation. The *Nautilus* profited from all earlier explorations in the area. In fact, this was the third foray the ship herself had made under the polar ice. Regular Navy subs have done long stretches of under-ice travel and much data had also been accumulated by ice-breakers and floating "drift stations" on floes and ice islands which had taken soundings as to depth of water and ice in many places. The ship carried the newest and most sensitive navigational instruments, enabling her to keep accurately on her course, while cut off from radio signals, sun and stars. Special instruments informed her navigators how far the ship was from the crust of ice above. The ice around the Pole is not deep, seldom more than 12 feet and sometimes only a few inches thick. There are lanes and lakes of open water, and the sea is deep. The *Nautilus* gathered valuable data on underwater polar topography.

The voyage of the *Nautilus* was the administration's best-kept secret. It had been planned since last February when the *Nautilus* went to New London, where it had been constructed, for a complete overhaul; then on to the Pacific. Commander Anderson and submarine scientist Dr. Waldo K. Lyon took a brief flight over the Pt. Barrow region, then during the summer the *Nautilus* made a first tentative trip. The crew of the *Nautilus* was given home leave before the next attempt. They were told of their objective—but the secret was perfectly kept.

Beyond its importance as a scientific "first," the undersea crossing of the *Nautilus* has military and commercial significance—just how great it is impossible now to foresee.

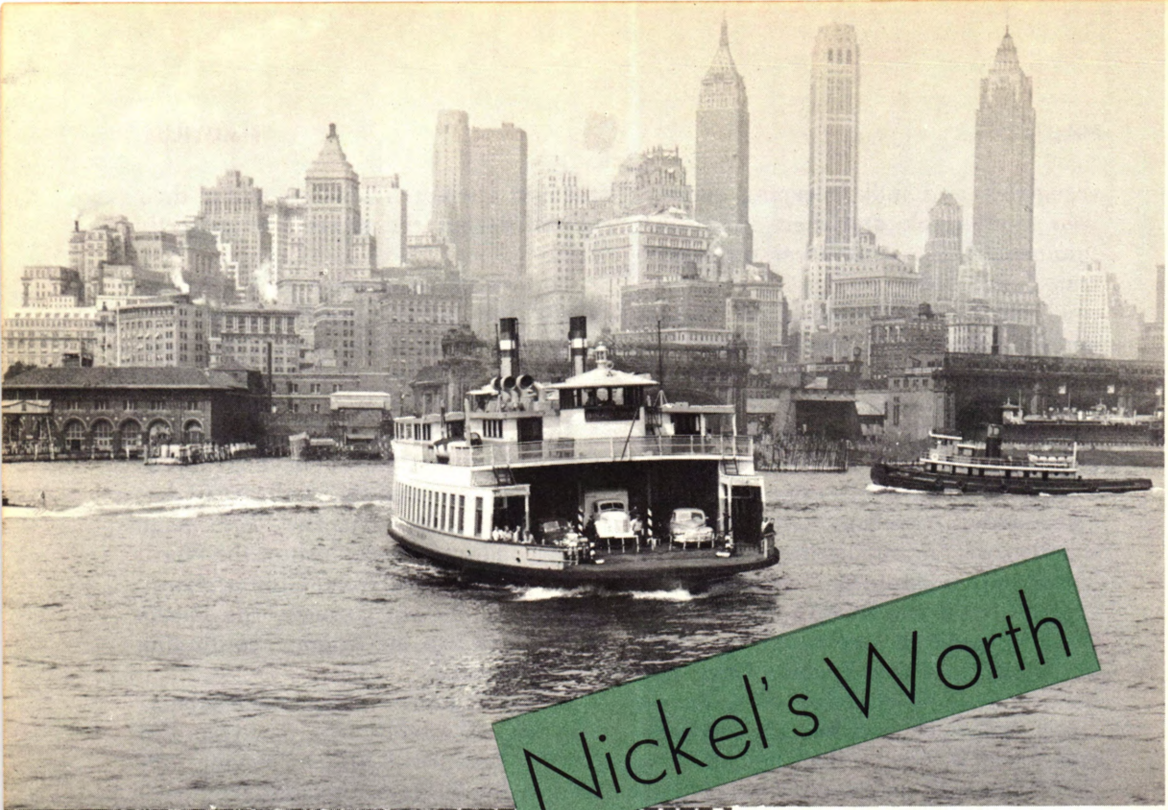
The Skate Makes It, Too. Perhaps to demonstrate that the feat of the *Nautilus* was not a one-time success, later in August the atomic submarine *Skate* made the second undersea transit of the North Pole, in a voyage from Groton, Conn. The *Skate* did not go on to the Pacific but returned to the Atlantic, continuing its explorations.

Seawolf's Record. The atomic submarine *Seawolf* established a new record in the late summer of 1958 by staying submerged for 60 days. Previously the record had been held by the *Skate,* which was under the water for 31 days. The performance of the *Seawolf* demonstrates that men can live for weeks and months using only the purified and replenished air they have with them at the outset. The air is cleansed by chemical filters and occasionally shots of pure oxygen are added. The feat has significance for man's projected journeys into outer space.

Twenty-five years ago: Prohibition ended in the U. S. on Dec. 5, 1933, when Utah became the 36th state to ratify the 21st Amendment to the Constitution.

Twenty-five years ago: In 1933, Frances Perkins was appointed Secretary of Labor, and became the first U. S. woman cabinet member.

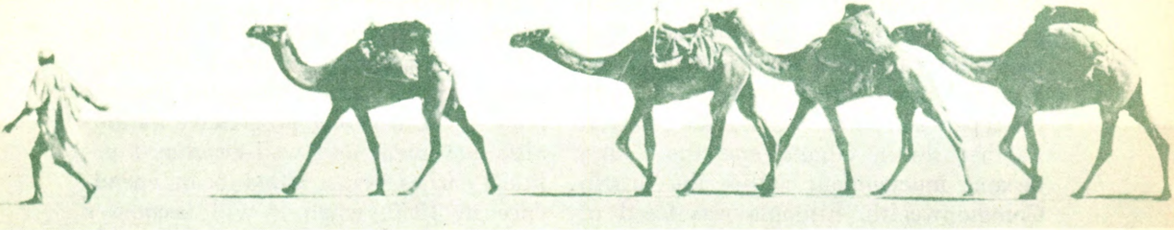
A hundred years ago: In 1858, the first trans-Atlantic telegraph cable was successfully laid across the ocean floor from Newfoundland to Ireland.



Nickel's Worth

MANY NEW YORKERS and visitors to the city think that the 5-cent ferryboat ride from Manhattan to Staten Island is the best half-hour of diversion to be had anywhere for the money. About the only other 5-cent bargain that still hasn't increased its price is the old-fashioned package of chewing gum. Below, block of chicle in a Guatamalan warehouse before being sent to the United States for complete refining and packaging as sticks of gum.

NIGERIA



Africa in Ferment. Since 1945, political and social changes in the Dark Continent have kept map-makers and encyclopedia writers well occupied. Up to World War II, Africa was almost wholly controlled by Europeans, with only two completely independent countries in the entire continent—Liberia and Egypt. And neither of these served as an example of what a modern government should strive to be. Liberia, a very backward land, was the domain of an American rubber company. The other, Egypt, had a tottering kingdom with a feudal economy constantly on the verge of collapse.

Change has been rapid on Africa's

NIGERIANS DANCE to celebrate the opening of a maternity center.

Mediterranean coast. Here Libya has become independent, and Tunisia and Morocco have achieved freedom within the French Union. Algeria continues to fight for separation from the mother country. Further south, Ghana and the Sudan became independent within the British Commonwealth. Ethiopia was freed of Italian domination and its ancient monarchy restored. Former German territories have been placed under protectorates of other European countries. U.N. Trusteeships are responsible for still others. All, or nearly all, are moving toward a greater measure of freedom. Progress is slow in some African territories south of the Sahara, particularly those controlled by Portugal, France, and Belgium. Also, in Kenya, where British settlers made permanent homes, pre-empting the best land, the conflict promises to be a long one, painful to both sides.

FIRST PRIME MINISTER of the Federation of Nigeria is Abubakar Tafawa Balewa.

Nigeria Next. The Federation of Nigeria, the largest country of Africa in terms of population (above 32,000,000), has advanced farthest along the freedom road. It has a strong progressive nationalist movement and well-developed political parties, and is slated for independence in 1960, when it will become a member of the British Commonwealth.

Nigeria lies on the west coast, on the Gulf of Guinea. In an earlier century, this was known as the Slave Coast. Many of the slaves shipped to the New World were recruited from the region. As in Ghana, there is no race problem in Nigeria. This is Black Africa, with non-Africans numbering only a few thousand. White settlement was forbidden by the British. Those who live there as businessmen, managers, technical experts, and officials keep to themselves. White faces are not commonly seen on the streets or in the marketplaces.

The British came to Nigeria some 300 years ago as explorers and traders. The French and Portuguese also established trading posts along the coast. Beyond the mangrove swamp belt of the coastal area were almost inpenetrable forests, where many products having a high commercial value were discovered. Further in the interior were the hills and rather dry plains used by the native peoples for pasturing their herds. Tribes with diverse customs inhabited the various regions, speaking more than 50 languages.

Northern Nigeria was held by powerful Moslem rulers. They had come in from the east long before to establish their dominion over the tribesmen, who were easy converts to Mohammedanism. The European traders made treaties with these Moslem rulers and with the native chieftains. Although Christian missionaries also braved the dangers of the interior, founding churches and mission schools, they were less successful than the Moslems. At present, there are about

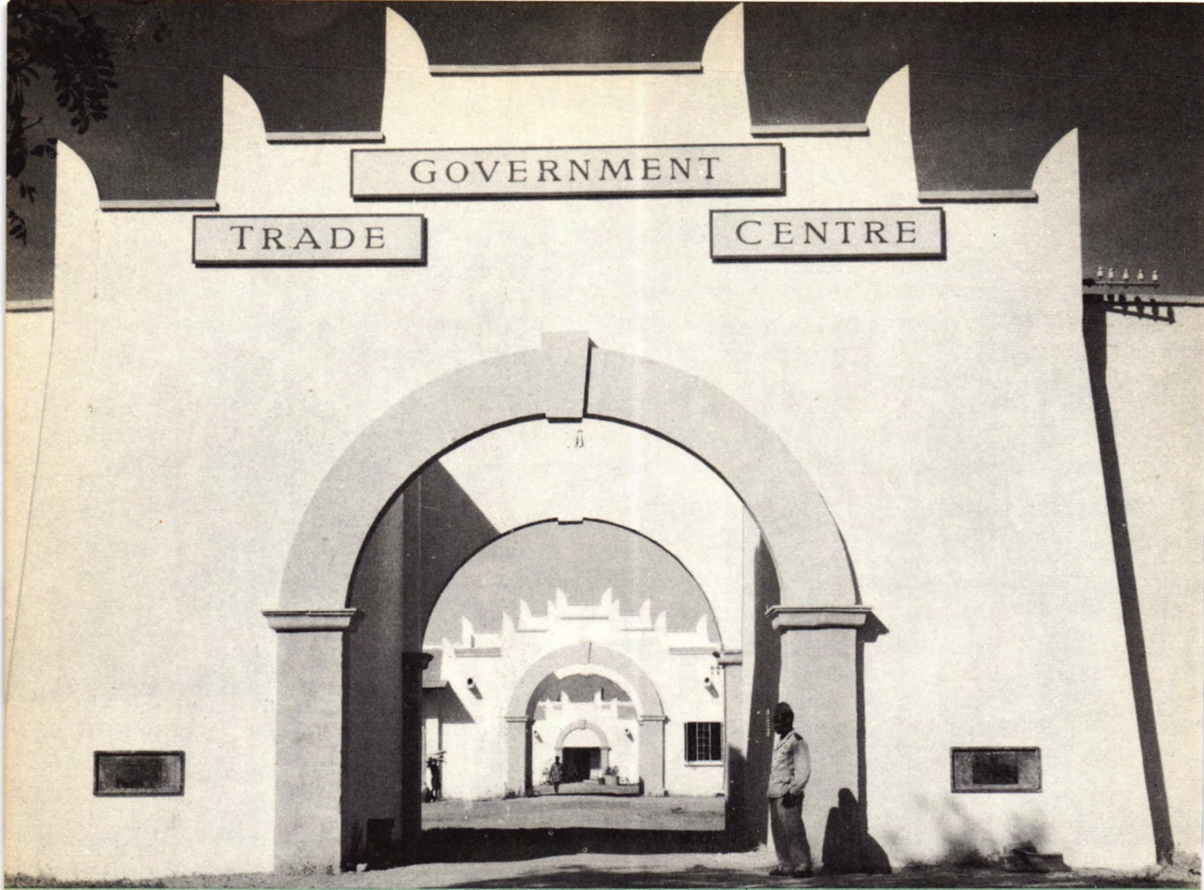
NORTHERN NIGERIAN tribesmen in fine array on parade.

two Moslems to every Christian. Millions of Nigerians are still pagans.

Under British Rule. As they extended their control, the British worked to consolidate the three main regions of this vast domain—the western, southern, and northern. These became the Protectorate of Nigeria in 1914, and today have emerged as a federated state.

Nigeria was governed in the past by what is called indirect rule. As far as possible, all government activities were performed by Nigerians. There was always the assumption that the Nigerians would rise to responsible self-government, and this, apparently, they have now done. The British interfered as little as possible with native customs. Yet the patterns of both local and national government are conspicuously British, and so are the manners and habits of life of those Nigerians who have long been exposed to British influences. This is especially observed in the towns among a prosperous middle class which is growing in numbers. Nigerian college students wear caps and gowns, and the judges wear wigs, as in Britain.

Cultural Aims. Nigerian leaders say that their aim is to retain the best of their own traditional culture and to adopt or adapt the best ideas from Europe. No one who is familiar with the African scene believes that any of the new countries will develop into a poor imitation of the West. Anthropologist Melville J. Herskovits, a specialist on primitive peoples, who has recently been living in Africa, has this to say of the Africans: "Many of the things they have learned from Europe they will keep, but not everything. . . . The African is developing his own kind of society and government, not our kind. He builds on his own



GOOD ARCHITECTURE **marks this government building at Kano, Nigeria, for it seems to belong in its environment. Nigerian tribal and political chiefs have agreed to the date Britain has set for independence—Oct. 1, 1960.**

foundation as well as on what has been brought to him. Government, the arts, trade, even diplomacy, have deep roots in Africa itself."

The freedoms of association, press, speech, and movement have been basic in this rapidly developing society. Nigerians have themselves organized farmers' cooperatives, literary societies, youth clubs, and kinship associations. A small group of Americans recently returned after spending several months living with a Nigerian family in a village, as part of the program of The Experiment in International Living. They reported on the solidity and warmth of the family tie. Anyone in trouble is helped by members of his family, even the most distant cousins. The problem of juvenile delinquency, or the reckless rebellion of youth against authority, is unknown. Nigerian children have considerable freedom—but they must not step too far out of line.

Education. Nigerians are thirsting for education, in common with most emergent peoples. They are developing a fine system of teacher training institutions and building schools at a rapid rate. The goal of universal primary education has not yet been reached, but about two-fifths of the children of school age are now said to be enrolled in school. The demand for secondary education far exceeds the number of places available. There are 84 secondary schools, 284 teacher-training institutions, a number of technical institutes, and a naval training center. University College was founded in 1947 at

the inland city of Ibadan. In 1958 University College had about 850 students. Its graduates are prepared for degrees of the University of London in Arts, Science, Medicine, and Agriculture. Its handsome modern buildings would put to shame those of some American universities. Ibadan is the largest all-black city in Africa, with a population above half a million.

The British have always encouraged the use of native languages and dialects. But the lack of a common language is a drawback when it comes to national institutions such as colleges and legislative assemblies. The leaders must be able to speak many languages.

Government. The basic instrument of government of the Federation of Nigeria is its constitution, which came into operation in 1954. It provides for a Governor-General, who heads the Council of Ministers of 10 members; a Federal House of Representatives which consists of 320 members, including a few appointed members. A constitutional conference held in London in 1957 outlined further the framework of the new government. Each of the five regions which comprise the Federation has its own executive council, and in the northern and western regions there is a two-chamber system, consisting of a House of Chiefs and an elected House of Assembly. The British will be leaving in Nigeria a class of trained civil servants and clerks. At the higher levels of government, many of the leaders have been educated at Oxford and other English universities.

Products. Oil was discovered in southern Nigeria in 1957. For years Dutch and British companies had been financing the search in various parts of the country. The discovery was made by Dutch Shell oilmen in the coastal region of steamy mangrove swamps. Pipelines have been laid to a point where oil barges can shuttle the oil down shallow creeks to Port Harcourt, where it can be transferred to sea-going tankers. If the flow proves sufficient for large-scale commercial exploitation, pipelines will be laid direct to the port.

A MASTER of the talking drums, Babatunde Olatunji has other things to his credit. He is studying for his doctorate in public administration at New York University, and plans to return to his native Nigeria to enter government service.

Coal and tin have been mined in Nigeria since the early days. The coal mines, once foreign-owned, are now in the hands of the government. The coal is used by Nigeria's railroads. Chief among exports are tin, cocoa, rubber, peanuts, hides and skins, and the products of the oil palm. Palm oil, the chief ingredient in many makes of soap, is Nigeria's strongest link with the West. The Unilever Corporation has heavy holdings in the palm-tree regions of the interior.

Rivers and Cities. With nearly 2,000

TRUCKS ARRIVE from distant points at Ibadan, Nigeria's largest city.

miles of railway lines and 37,000 miles of maintained roads, Nigeria has better means of transportation than most African countries. The inland waterways are much used. From Nigeria's greatest river, the Niger (meaning "black"), the land derived its name. Flowing through French West Africa before it reaches Nigeria, the Niger is 2,600 miles long—the third longest in Africa. Three hundred and fifty miles before it empties into the Gulf of Guinea, it is joined by the Benue. The two rivers and their confluence form a huge letter Y that dominates every map of Nigeria. A Dutch engineering firm has for the past two years been engaged in a thorough study of this river system, which has never been properly charted. One aim of the research and the knowledge growing out of it is to control the flow to prevent floods and to prevent the lowering of the waters to the point where navigation is impossible. The delta, which from the air looks like a giant octopus spreading out its tentacles, is the haunt of tribes of fishing folk.

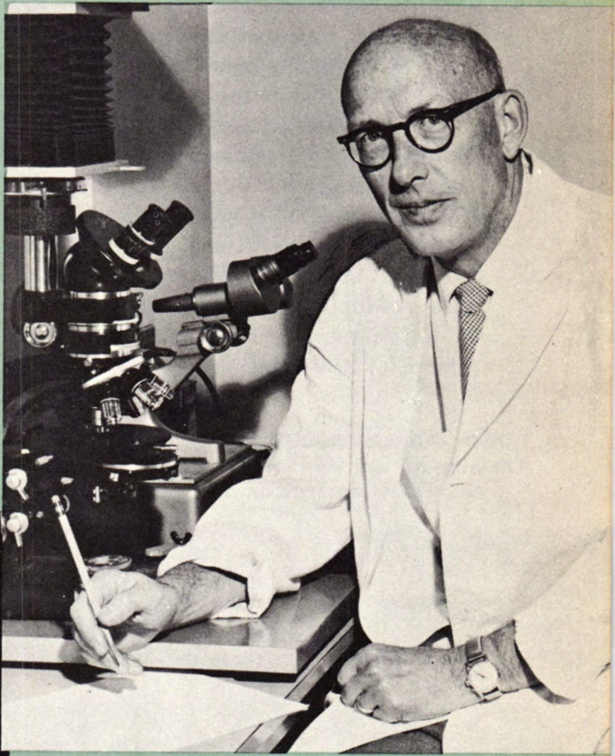
Nigerians tend to be town dwellers. Surprisingly, there are seven cities in the country that have a population of over 100,000, and many more with a population of from 40,000 to 50,000. Lagos, the capital and a principal port, is second in size, with 272,000 people. It lies west of the Niger delta, and was a center of trade routes, as well as a provincial capital, before it became capital of the new Federation.

In Lagos the leafy boughs of giant trees meet over unpaved streets. Riotous noise, color, and the animation of a relaxed and happy people fill the public squares. The government maintains guest houses for travelers, and for foreign residents there is a special quarter of neat houses and gardens. The Unilever firm operates in Lagos one of the finest department stores in West Africa—for the use of all.

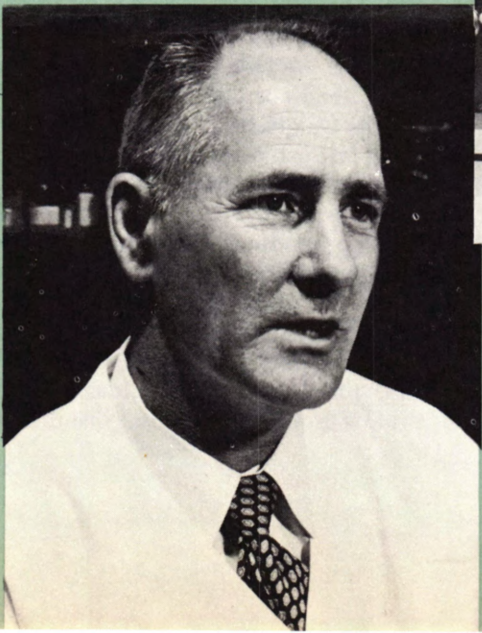
American NOBEL Prize Winners

DR. JOSHUA LEDERBERG

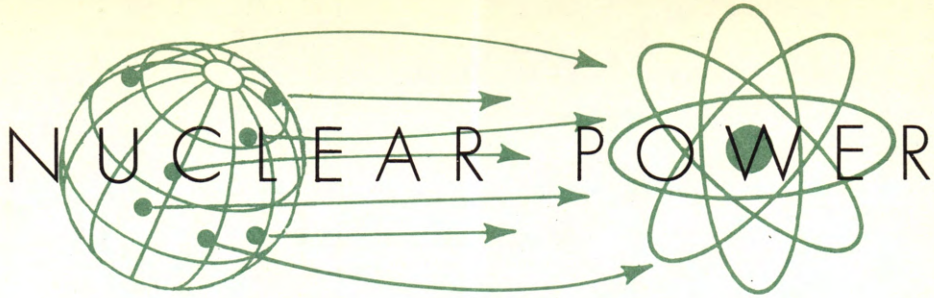
THE PRIZE IN MEDICINE, totaling $41,420, was awarded to three American geneticists. Dr. Joshua Lederberg, 33, of the University of Wisconsin, received half the prize for research in the transfer of genetic material between certain strains of bacteria. Dr. Edward L. Tatum, formerly of the University of Wisconsin, now of the Rockefeller Institute for Medical Research, shared the remaining half of the prize with Dr. George Wells Beadle of the California Institute of Technology. Their award was for experiments with bread mold and their discovery that genes transmitted hereditary characteristics by controlling chemical reactions.



DR. EDWARD L. TATUM



DR. GEORGE WELLS BEADLE



Again—Geneva. Since the first Atoms for Peace Conference, held in the Palais des Nations, Geneva, Switzerland, in 1955 (reported in World Topics Year Book for 1956), a great deal has happened in this field. The second International Conference on the Peaceful Uses of Atomic Energy, also at Geneva, was held in September of 1958. Like the first it brought together thousands of scientists and business men from all over the world to exchange information, see exhibits, and hear papers read. The "have" countries in the nuclear power field had impressive display models and diagrams. The "have nots" were represented also, for even though they may not have atomic plants, they have scientists who are making important contributions.

Participants declared that the atmosphere of this conference was markedly friendly. A lack of secrecy and a willingness to share knowledge was noted on the part of the three most advanced countries, the United States, the U.S.S.R., and Great Britain.

A realistic spirit prevailed, too. Frances Perrin of France, president of the conference, expressed this feeling when he declared at the opening session that for some time to come atomic-electric power would be the world's most expensive form of electricity. The atom offers no immediate resource for the power-hungry areas of the globe.

DAG HAMMARSKJOLD inspects a model of a Russian nuclear ship after opening the second Geneva conference on atoms-for-peace.

American Exhibit. The United States displayed many static models and exhibits and four working models, some of them only recently removed from secret or classified lists. Among them were the Perhapsitron S-4, a doughnut-shaped electric discharge tube; a machine called Scylla, from the Los Alamos laboratory, which may soon be producing fusion reactions under controlled conditions; a plasma acceleration machine (plasma is what scientists call gas that is broken up into charged ions and electrons), a long tube for studying jets of plasma; and a direct current experiment (DCX) from the Oak Ridge National Laboratory. In this last exhibit, the intense blue light of an electric arc is used to break up molecules injected into it at high speed. The break-up produces electrically charged deuterium atoms (called ions)which are the raw material of fusion reactions.

U.S.S.R. The Soviet display had no working models. One of the exhibits was Ogra, the largest fusion device in the world. It is an underground installation,

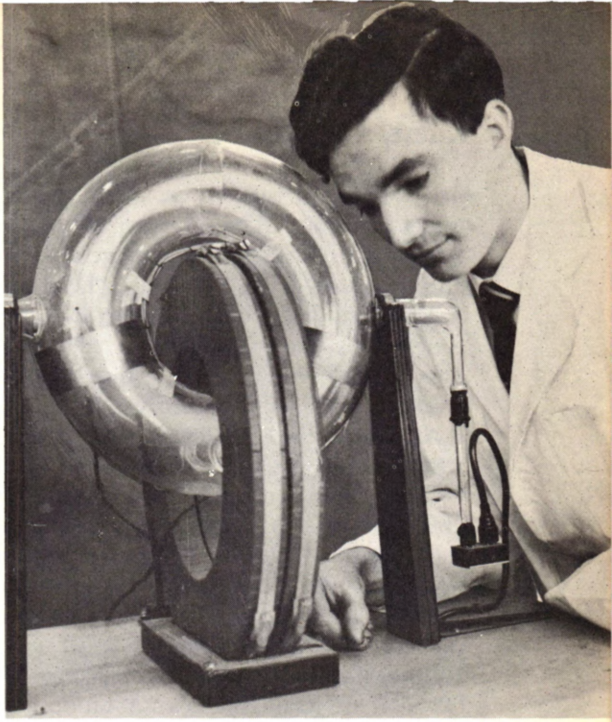
tubular in shape, 64 feet long by four and a half feet wide. Somewhat similar to the U. S. DCX, its purpose is to break up deuterium molecules. It is very new and its practical results haven't yet been fully analyzed. The Soviet exhibit also included a model of an atom-powered ship.

Surveying U. S. Progress. In 1954, the Atomic Energy Commission launched a five-year $120 million program of building experimental atomic power plants. So far, the cost has far exceeded the estimates. Since all the work was experimental, there was no technical data on which to base precise estimates.

The five-year plan has been the object of criticism, mainly on the ground that this method of developing reactors was too slow and that nuclear power can be achieved more quickly by building full-scale plants. Critics also claimed that private enterprise was not carrying its share of the financial burden. From the figures now available, it appears that the latter criticism is less justified now than several years ago. Not until methods are devised for producing nuclear power at a cost level with power from other sources will private enterprise rush into this field. There are such considerations as safety factors and manpower required, in numbers and types of training.

Four of the five plants planned at the start have been completed, as have others that were conceived later. Eight civilian power reactors and reactor experiments were in operation in 1958, producing 78,000 kilowatts. Many more power reactors were under consideration and others are scheduled. By 1964, no less than 23 will be in full operation. Their total net electric capacity will be about 1,300,000 kilowatts.

Four of the plants now under construction represent private capital investment of $250 million. Of eight jointly-sponsored projects not yet under construction, AEC funds of $150 million will be more than matched with industry's commitments of $250 million.



WORKING MODEL of Britain's doughnut-shaped ZETA (zero energy thermonuclear assembly) at Harwell research center.

The AEC's own program includes reactor experiments to explore and test ten design concepts, plus co-ordinated attacks on such problems as fuel development, chemical processing, shielding, reactor safety, and waste disposal. Reactor types vary as to fuels, coolants, moderators, and structural materials. Only by experimenting with different combinations of these can the most efficient method be found. In the field of structural materials, for instance, there is a long list of corrosion-resistant materials to be tried. The method has been to try out different types of reactors in small scale plants. An exception to this is the Shippingport, Pa., plant, which is large scale.

Shippingport. This large experimental plant went into operation in December, 1957, and has operated since at full speed, 60,000 kilowatts. It is jointly owned by the AEC and the Duquesne Light Com-

pany. It has a reactor cooled by water under pressure. The pressurized water gives up its heat to a steam generator, and the steam drives a turbine. The plant is being studied, and although definite conclusions about its over-all efficiency have not been reached, Shippingport power is considered expensive.

Argonne. Two nuclear power plants will operate at Argonne, Ill. One is a boiling-water reactor and the other a "breeder" type, designed to produce more fuel than it consumes. The latter project will not be completed before 1960. It will be comparatively small, with a power capacity of 20,000 kilowatts.

Other Research. Atomics International Division of North American Aviation has completed preliminary testing on two types of reactors. One is a sodium reactor, cooled by liquid sodium. The other is an organic-moderated reactor. An organic compound is used both as a moderator, to slow down neutrons and give them a better chance to fission atoms, and as a coolant. It will require a good deal of time before any conclusive results are compiled on these two.

The United States holds the patents in the atomic energy field. To date, 1,448 such patents have now been released and made available for public use.

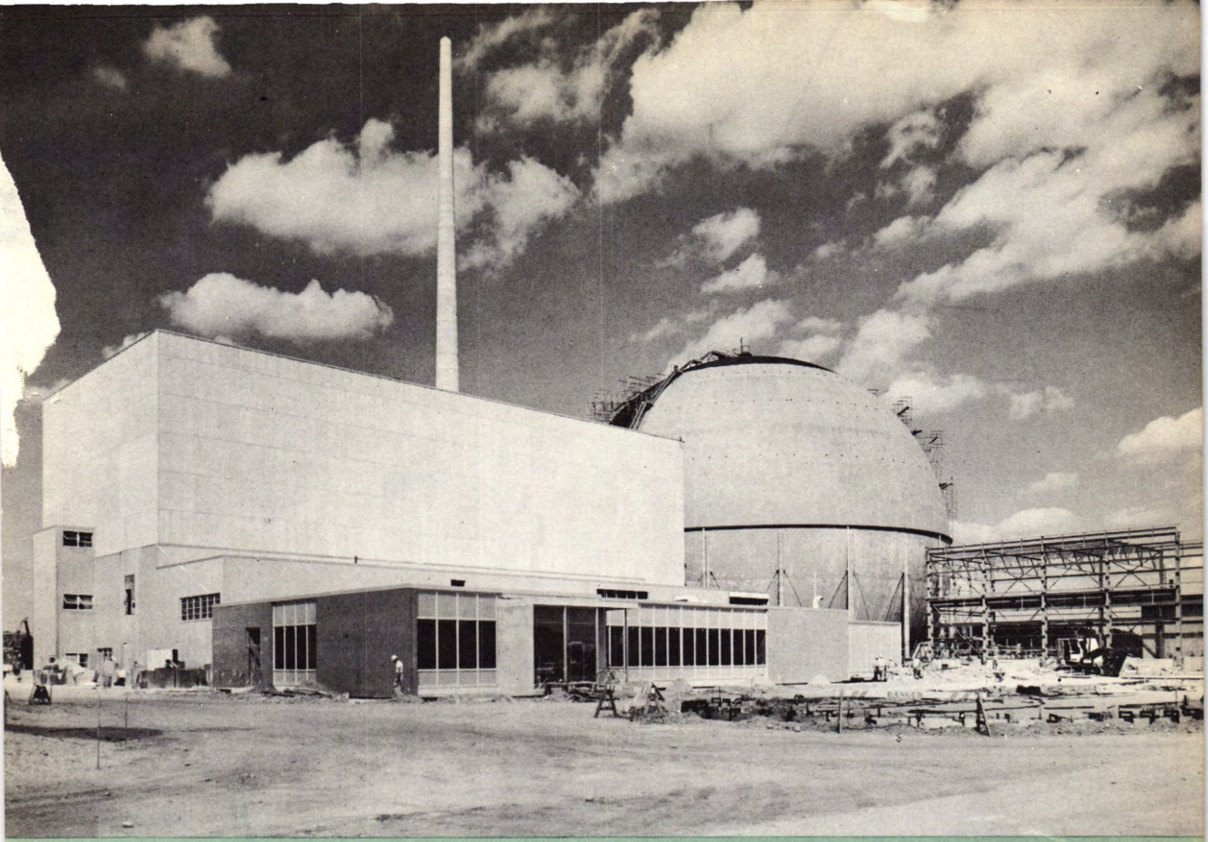
More than 250 scientists and engineers are now engaged in thermonuclear research, all with the same goal--the harnessing of nuclear fusion reactions for the production of power. The Government, in fiscal year 1959, will double the amount of money spent on this program.

Plowshare Project. Another branch of AEC research goes under the name of Project Plowshare — to suggest Isaiah's exhortation to beat "swords into plowshares." Investigations have been started to test how nuclear explosions may be turned into peaceful uses, other than the creation of electrical energy. Industrial applications might include the excavation of harbors, oil recovery, and mining operations. The disposal of radioactive wastes presents a problem, and therefore the use of nuclear explosives in mining or oil development would be feasible only in unpopulated or sparsely populated areas—such as the Sahara Desert or Alaska. The suggestion to excavate an Alaskan harbor in this way was considered, but apparently rejected as impracticable.

Radiation Worries. The opposition to nuclear weapons testing continued, and the opponents of testing had their arguments reinforced when the report of the United Nations Committee on radiation dangers appeared. This document supported the arguments of those who claimed that fairly small doses of atomic radiation presented definite present dangers to human beings and future hazards to the human race.

International Co-operation. The United States has agreements for co-operation with 39 countries, covering atomic research and atomic power. Nearly 600 foreign nationals have received training at the Oak Ridge Institute for Nuclear studies and at other national laboratories. Hundreds of foreign visitors tour U. S. atomic plants. Technical libraries have been presented to 53 countries and to five international organizations. The United States is willing to allocate large quantities of reactor fuel to get projects under way, and also to lend top U. S. technical people. Atoms-for-Peace missions have been sent to many lands. American manufacturers are building research reactors and full-scale power reactors for installation in several foreign countries.

Uranium. The production of uranium oxide, nuclear fuel, is now running at the rate of about 8,000 tons yearly. According to figures given out by the Atomic Energy Commission, uranium ore reserves in the United States total 60 million tons. Canadian reserves are esti-



NUCLEAR POWER STATION, Dresden, Ill., 50 miles southwest of Chicago, will be in operation by 1960. It will be owned and operated by the Consolidated Edison Company, although a part of the expense of construction is being met by other companies associated in the Nuclear Power Group. When full efficiency is attained, a 60-ton core loading of slightly enriched uranium is expected to last five or six years. The power output of 180,000 kilowatts of electricity is enough to meet the needs of a city of 250,000.

mated by the Canadian Government at 225 million tons.

British Developments. Of the United Kingdom's four nuclear plants, the largest —and the largest in the world—is at Hinkley Point, Somerset. It will not be in operation until 1962. It will be a natural uranium, gas-cooled, graphite-moderated type, with an output of 500,000 kilowatts. This is about three times the output of the plants at Calder Hall, the world's first atom power station. The Berkeley project in Gloucestershire is another now under construction, due for completion in 1960-61. According to informed opinion, Great Britain led the world in 1958 in the effort to produce power from controlled thermonuclear (hydrogen) reactions, at a moderate cost.

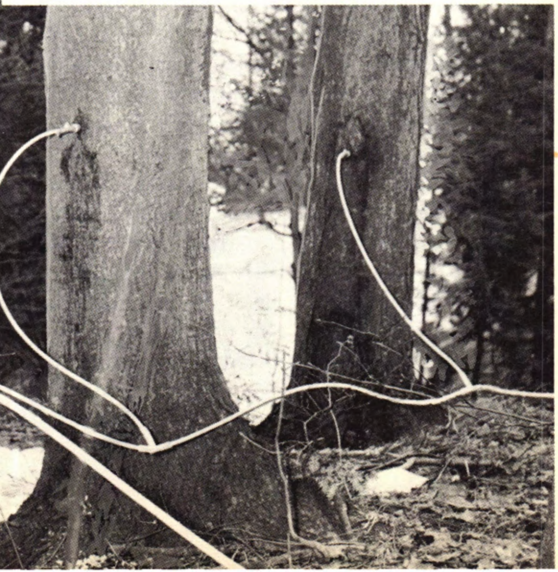
Strauss Retires. Admiral Lewis L. Strauss, chairman of the Atomic Energy Commission during these eventful years, was responsible for much of the planning and progress outlined above. He was succeeded by John A. McCone.

Strauss was a controversial figure. Many of his policies were opposed by atomic scientists and by the public as well. No one denied his courage, patriotism, and vigorous leadership. His determination to continue weapons testing and his consistent minimizing of radiation dangers were criticized, and the secrecy with which he surrounded the affairs of his office, its plans and projects, were thought by many to be excessive.

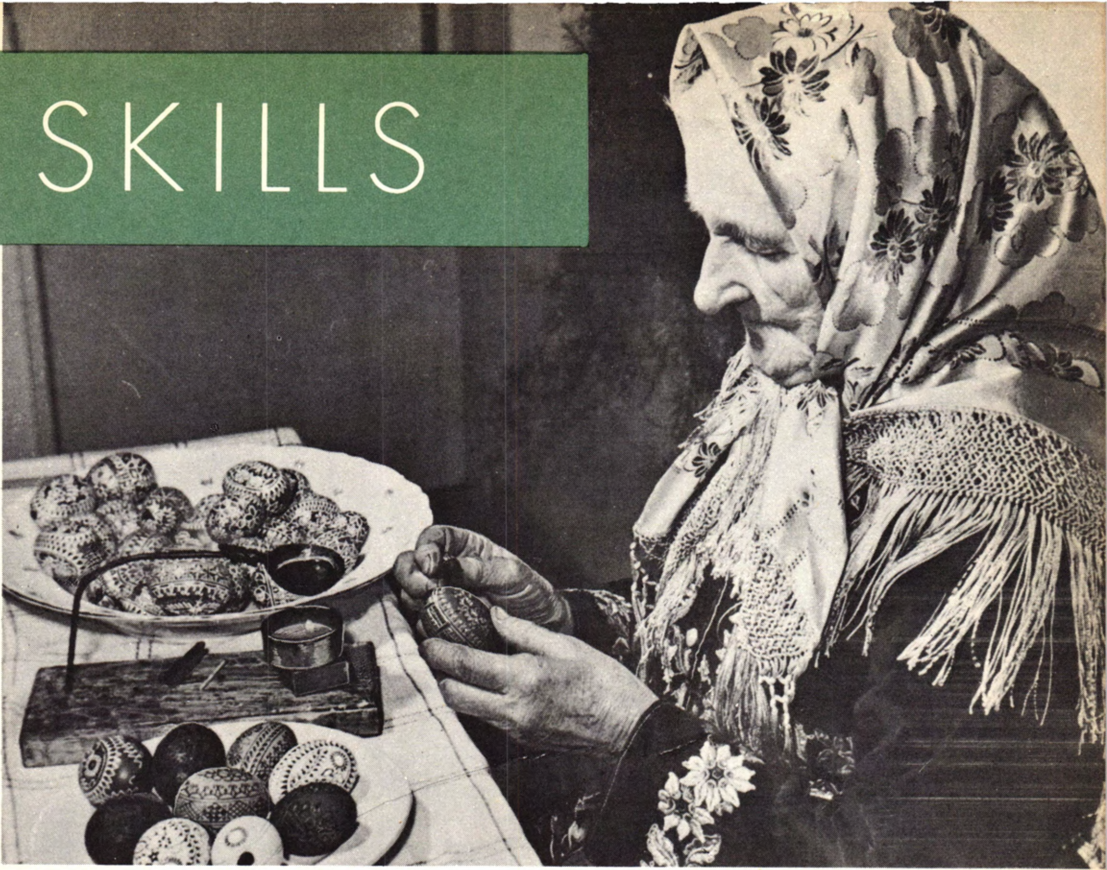
OLD TIME

MAKING PILLOW LACE is an ancient art still practiced, as this old lady of Portofino, Italy, demonstrates.

MAPLE SAP is collected in a new way at South Wales, N.Y. Plastic feeder pipe carries it by gravity to the sap house.



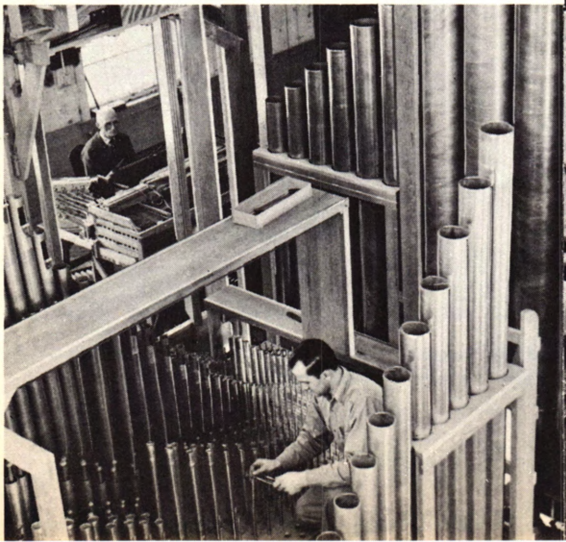
SKILLS



FOR SIXTY YEARS this Polish grandmother has been painting eggs, an art practiced in Eastern Europe. Some of her artistic products were displayed at the Brussels Fair.

TO ASSIST FARMERS with their blacksmithing problems, Michigan State University offers a short course in horseshoeing, one of two given in American universities.

AUTOMATION has made no inroads on the old way of making organs, which requires the patience and attention to detail given only by skilled artisans. This is the Casavant organ factory at Hyacinthe, Can.



EAST-WEST SCIENTISTS met in Geneva in July to discuss the technical aspects of disarmament. In a surprise move, the U.S.S.R. offered to join in a nuclear inspection system.

PACIFIC PROTEST

CONTINUED NUCLEAR BOMB TESTING by the United States in the South Pacific and elsewhere has been deplored by many persons. Organized opposition grew with the formation of the Committee for Non-Violent Action Against Nuclear Weapons, Philadelphia, and the National Committee for a Sane Nuclear Policy, New York City. The legality of the Atomic Energy Commission's ruling that forbade the entry of American citizens into a 390,000 square-mile area of open ocean in the Marshall Islands region was challenged twice in 1958, when two yachts entered or approached the forbidden zone. The first, the *Golden Rule*, was captained by ex-Navy Commander Bert Bigelow. He and his crew were tried in Honolulu courts, where Bigelow testified that he did not believe setting off nuclear bombs contributed to the defense of the United States or to its moral position in the world. Later, Dr. Earle Reynolds, anthropologist, ventured into the area with his wife and daughter on his yacht, the *Phoenix*, in the same spirit of protest. Both Bigelow and Reynolds were given jail sentences. The latter's sentence was deferred pending appeal.

PACKAGING

PACKAGING becomes a science when such delicate instruments as these electronic tubes must be shipped. First they go into a corrugated box, surrounded by plastic foam cushions, then into an all-fiber drum.

Leaves Versus Cellophane. Elaborate and careful packaging of consumer products, especially foodstuffs, is a feature of American life that is duplicated nowhere else in the world. In most countries shoppers go to market carrying a basket or a capacious cloth or string bag into which a miscellany of items are dropped unwrapped. In the tropics soft fruits may be encased in large green leaves. In many European countries, especially at small neighborhood shops where wrappings al-

ways seem to be in short supply, dampish vegetables are wrapped in torn sheets of old newspapers, meats in absorbent brown paper that disintegrates rapidly. Daily or even twice-a-day shopping for food is the rule where sanitary packaging and home refrigeration are absent or rare.

Economics of Packaging. In the United States food packaging has proved economical for the wholesaler and retailer. It has cut storage costs and saved vast sums formerly lost through spoilage, leakage, and the invasions of insects and rodents. Packaging of perishables not only keeps out dust and flies after the articles have reached the market—those cellophane wrappings also tend to keep shoppers from pinching peaches and other fruits to test their ripeness, a habit which causes great damage and loss. New and improved types of cellophane and other plastic wrappings thus have covered their cost by preventing or lessening decay and deterioration.

For the consumer, the advantages of good packaging are many and obvious. The transparent packages of trimmed meats are a great convenience for the hurried shopper—even though the bottom of a tray may prove to be less attractive than the topside! Those who patronize the personal-service type of butcher (who still exists) may, of course, get their wants attended to with more precision—but usually at a loss of time.

Other developments in packaging which are advantageous to the consumer are the insulated bag; the individual packages of ready-to-eat cereals or crackers within the larger package. Economical and convenient are the ready-chopped salad vegetables in cellophane bags, designed for the single person or small family. A quarter of a watermelon under wraps may now be bought, whereas formerly the grocer's rule, when it came to selling watermelons, was 'all or nothing.' These are a few of the innovations of practical benefit to the consumer.

The housewife herself is a constant user of packaging materials. The winter clothing and blankets go into their appropriate dust- and moth-proof bags and boxes; gifts are wrapped. Wax paper and aluminum foil are lavishly used for school lunches, refrigerator wrappings, and in many other ways.

Growth of the Industry. The packaging industry has grown with the rise of the supermarket, and the spread of hardware, variety, and drugstores that offer self-service. The industry is today large and complex, involving millions in profits. It includes not only the producers of cellophane and other types of polyethylene wrappers, but also paper, cardboard, glass, tin, wood, string, ribbon, tape. Tin, once the prime substance used in encasing prepared foodstuffs, manages to hold its own despite the inroads of frozen food in cartons. A billion cardboard boxes are used up and thrown away each year in the United States—about 2,000 for every family in the land!

The designer of packages is a key figure in this picture. Since the package in so many cases replaces the salesman, attractiveness of design becomes of paramount importance. It sometimes makes the packaging cost nearly as much as the article it encloses. Cigarette companies spend millions to devise a new cigarette box. Market researchers, admen, and psychologists are all involved in the presentation of the final product—a little box or carton that will almost immediately be tossed into the wastebasket. But the manufacturer has learned by bitter experience that, with thousands of brand names competing for the attention of the purchaser, the way his product is presented to the public may spell its success or failure. Waste? Yes, it's wasteful of human effort and the material product itself. The people pay for it. As of now, it appears that they are willing to do so.

THE LATE POPE PIUS XII shown with children who came to the Vatican to help celebrate the 19th anniversary of his coronation.

THE PAPACY

Death of a Pope. The death of Pope Pius XII and the coronation of the new Pope John XXIII were events of primary importance in the Catholic world of 1958. At his death, Pope Pius, 261st in the papal line, had reigned for nineteen years, seven months, and seven days. It was a period of war, catastrophe, and change, yet it was also a period during which Roman Catholicism experienced a renewed strength in many parts of the world.

Pope Pius, 82, died on October 9 at the papal summer residence, Castel Gandolfo, 15 miles from Rome. He had suffered a stroke on October 6, and a second one the following morning. After this he became unconscious, and his strength

rapidly declined. Up to this last illness the Pope had conducted the affairs of his high office with great vigor of mind. Since 1954, however, when he began to suffer a series of gastric disorders, his health had been far from robust. A recurrence of the old trouble, followed by the two strokes, proved fatal. A slender, wiry man, the Pope had withstood the never-ending demands on his time and energy with remarkable stamina. His physique had been hardened by early mountain climbing and horseback riding. He had made a complete recovery from a siege of tuberculosis.

Amid mourning crowds, the Pope's body was carried back to Rome, his birthplace, to lie in state for three days below the high altar of St. Peter's basilica. The funeral, to which the countries of the world sent representatives as a tribute to a man widely beloved and revered, as well as out of respect for the institution he headed, was marked by ancient ceremony and ritual.

High Attainments. Pius XII, born Eugenio Pacelli of an aristocratic Italian family, was a man of remarkable mentality and spiritual gifts, as well as physical endurance. Entering the priesthood as a youth, he early gained a reputation for scholarship and piety. In maturity he became papal secretary of state and papal nuncio, or ambassador, serving for many years in Germany. A churchman who knew what was going on in the world, Pacelli was well informed in many fields —science, economics, politics, and literature. He spoke six languages well, and had a passing knowledge of many more. As Pope, he had the faculty of finding some common ground of understanding with every person or group—Catholic, non-Catholic, lay, or clerical—seeking audience with him. With children or the world's diplomats, he had the same graceful gestures, sincere words, the same warm, gentle, engaging manner.

Although by temperament the Pope was cautious and diplomatic, the spirit of the times forced him to make changes in many old patterns. He was, in fact, called "the Innovator," for he did not turn away from modern progress. He recently approved ventures into space, in declaring to a rocket congress, "When God enjoined man to conquer the earth, He doubtlessly included the universe as well." Pope Pius was the first Pope to make use of the telephone regularly, and the first to use a typewriter (a white portable). He liberalized some Church rules and he suggested that nuns' garb be modernized.

Yet in the field of dogma, he was unwaveringly firm. During his pontificate, he promulgated the old dogma of the Virgin Mary's bodily assumption into heaven.

Great disasters swept over the world during the reign of Pope Pius. His coronation occurred in 1939, on the very eve of World War II. He had watched the rise of Nazism and Mussolini's growing power. He threw the weight and prestige of the Church into the struggle against these soul-crushing totalitarian regimes. In the post-war years, the Vatican has stood firmly against the advance of Communism. Due in part to his guidance, the papacy recovered ground lost in the pre-war years. This may be evidenced by the rise of Catholic statesmen in several European countries — Adenauer, Schuman, and Fanfani, among others — and the Christian Democratic political parties they head.

The Interregnum. After the Pope's death, the cardinals of the Roman Church were summoned to Rome. On October 25, after the prescribed nine days of mourning, they went into secret conclave behind sealed doors of a Vatican apartment. The actual deliberations took place in the Sistine Chapel.

Speculation was rife that a non-Italian

POPE JOHN XXIII, on the occasion of his first address to the world on Oct. 29.

pope would be chosen for the first time, but this was not to be. On the third day of seclusion, and on the eighth ballot, Angelo Giuseppe Cardinal Roncalli, patriarch of Venice, was chosen. When he left his palace in Venice to attend the conclave of cardinals in Rome, he could not have known that he was viewing the canals of Venice for the last time. The news sped around the world, and the investiture followed quickly. The new pope chose the name of John XXIII. With his coronation on November 4, the world began to learn something of him.

The New Pontiff. He is of north Italian origin, of a farm family. Like his predecessor, he is a good linguist, speaking several languages. He understands Russian and English. A background of nearly 30 years in service to the Vatican, in missionary work and as a diplomat in the Balkans and in France has prepared him for his duties. In France where he was sent after the war, he is particularly well liked. While he was the papal ambassador in Paris, French priests started the "worker priest" movement, in which priests took jobs in factories and mines. He was said to favor this experiment, which the Vatican thought too bold and ended. According to his first statements and interviews after becoming Pope, he regards himself as a "pastoral pope," with his concern centered on people rather than politics and diplomacy.

As one of his first acts the Pope appointed 23 new cardinals, among them being Archbishop John O'Hara of Philadelphia and Richard J. Cushing of Boston.

A Great Realm. The Pope's realm encompasses about 468,314,000 persons, almost one-fifth of the world's population. This figure does not include Roman Catholics living in Communist countries. The concentration is heaviest in Southern and Central Europe, in Ireland, and in the Latin-American countries. In the United States there are about 36,000,000 Roman Catholic communicants. In Communist Hungary and Poland, the population is predominantly Catholic, but the church does not function freely. It is estimated that there are today some 8,000,000 Catholics in the Soviet Union. Missionary outposts have been established in many far corners of the world.

PASSPORTS

Important Decision. The Supreme Court in June, 1958, made its first ruling on passports in 13 years. The decision reversed the policy which the Passport Division has been following, namely, that the issuance and revocation of passports are entirely in the realm of foreign affairs, and as such within the discretion of the State Department. The Supreme Court decision upholds the right to travel abroad as basic. It forbids the issuance of passports to only two classes of applicants, those who are not citizens and "those who are participating in illegal conduct, trying to escape the toils of the law, promoting passport frauds, or otherwise engaging in conduct which would violate the laws of the United States."

How important is this decision? The more than half million U. S. citizens who travel abroad every year must each (save minor children) be supplied with a passport, validated for that specific trip. Most applications go through in a routine fashion, but some thousands have been denied. Since World War II, complaints of the Passport Division's arbitrary refusals have been continuous.

The person denied a passport was in no position to argue his case, for he was not given an explanation as to why his request was not granted. It was claimed by critics of this practice that refusals were often based on hearsay evidence, the testimony of anonymous accusers, or whim. In general, passports have been refused to Communists, to alleged Communist sympathizers, and to those who had—when investigated by a Congressional Committee — refused to divulge their political affiliation, pleading the Fifth Amendment. In recent years passports have been denied to Arthur Miller, playwright, to Dr. Otto Nathan, lawyer and executor of Dr. Albert Einstein's estate, to Paul Robeson, the Negro singer, to Nobel Prizewinner Dr. Linus Pauling, and to thousands of others.

Dr. Pauling, an atomic scientist, had received the Medal of Merit, the highest civilian award, from President Truman. Yet he was refused a passport in 1952 to go to London to address the British Royal Society. In the next two years the Passport Division granted him permission to travel abroad on four occasions and denied three other applications. Many distinguished citizens in testifying before the Senate's Committee on Constitutional Rights have denounced such procedures. Some passport cases have been contested and have reached the lower courts. Several decisions have tended to limit the authority of the State Department. Court of Appeals Judge Charles Fahy ruled in 1955 that the right to travel was part of the liberty protected by the Fifth Amendment and reasons for denying it must comport with due process of law. The Supreme Court's new decision goes along with this but declares the right is still subject to reasonable limitation by the State Department.

Following the decision, Rep. Francis E. Walter, Democrat of Pennsylvania, co-author of the highly restrictive Immigration Law, sponsored a bill giving the Secretary of State unlimited authority to deny or revoke passports. Congress failed to pass it.

PEOPLE in the NEWS

LT. GEN. JAMES M. GAVIN, former Army missile chief, retired from the service after his ideas for streamlining the command setup were rejected.

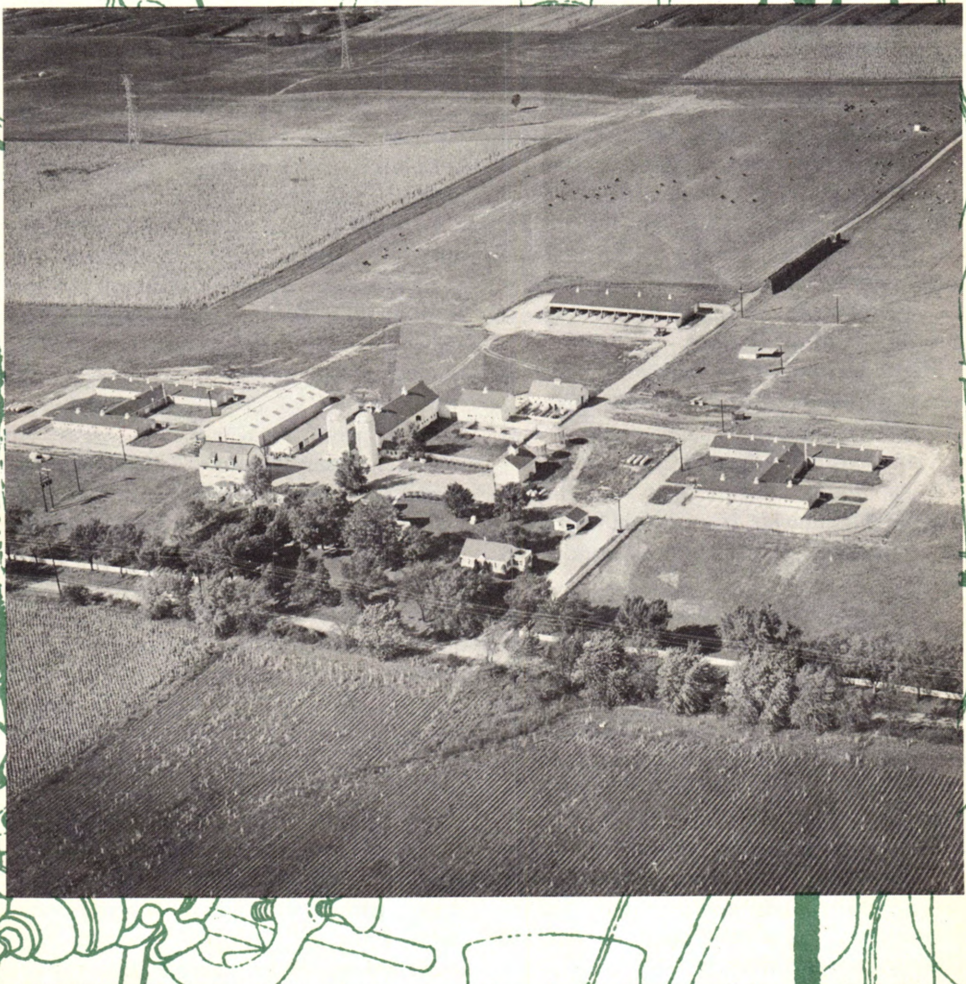
NATHAN F. LEOPOLD, JR., released from prison after 34 years, began work as a technician in a rural hospital in Puerto Rico. His book, *Life Plus 99 Years*, was published in 1958.

PETER USTINOV, star and author of the comedy, "Romanoff and Juliet," is also a TV entertainer, and something of a philosopher and wit.

Pharmaceutical Industry

Drugs and Disease. The last two decades have been by all odds the most spectacular in man's long warfare against disease. Life expectancy in America has climbed ten years to the Biblical ideal of three score and ten. Even more dramatic has been the sharply declining death rate for specific illnesses brought about by a chemical revolution in medicine.

The antibiotics, hormones, vaccines, cortical steroids, and other drugs have in this period in the United States alone



RESEARCH FARM for studies in crop growth and veterinary medicine, conducted by Abbott Laboratories near Mundelein, Ill.

saved perhaps three million lives. They have rescued millions of people from serious and costly sickness. It would be impossible to measure their value in terms of economic gain—or of human happiness.

Since 1944 influenza deaths have declined 92 per cent; maternal deaths, 83 per cent; acute rheumatic fever, 80 per cent; appendicitis, 80 per cent; tuberculosis, 79 per cent; syphilis, 71 per cent; acute nephritis, 60 per cent; infant deaths, 35 per cent; pneumonia, 34 per cent. Still fresh in public memory is the heart-warming conquest of polio.

Even in areas still resisting the efforts of medical science there has been striking progress. While not cures, the chemical tranquilizers have hastened the control of many forms and degrees of mental illness. New drugs are slowing the ravages of hypertension. Surgical techniques are repairing damaged hearts. Early diagnosis and improved therapy are helping to arrest cancer. So the story goes across a wide range of diseases.

Behind "wonder" or "miracle" drugs—and responsible for them to an impressive degree—is the complex, efficient, ethical pharmaceutical industry. One of the fastest-growing in the American economy, it has built its market from $150,000,000 in 1939 to more than two billion dollars today.

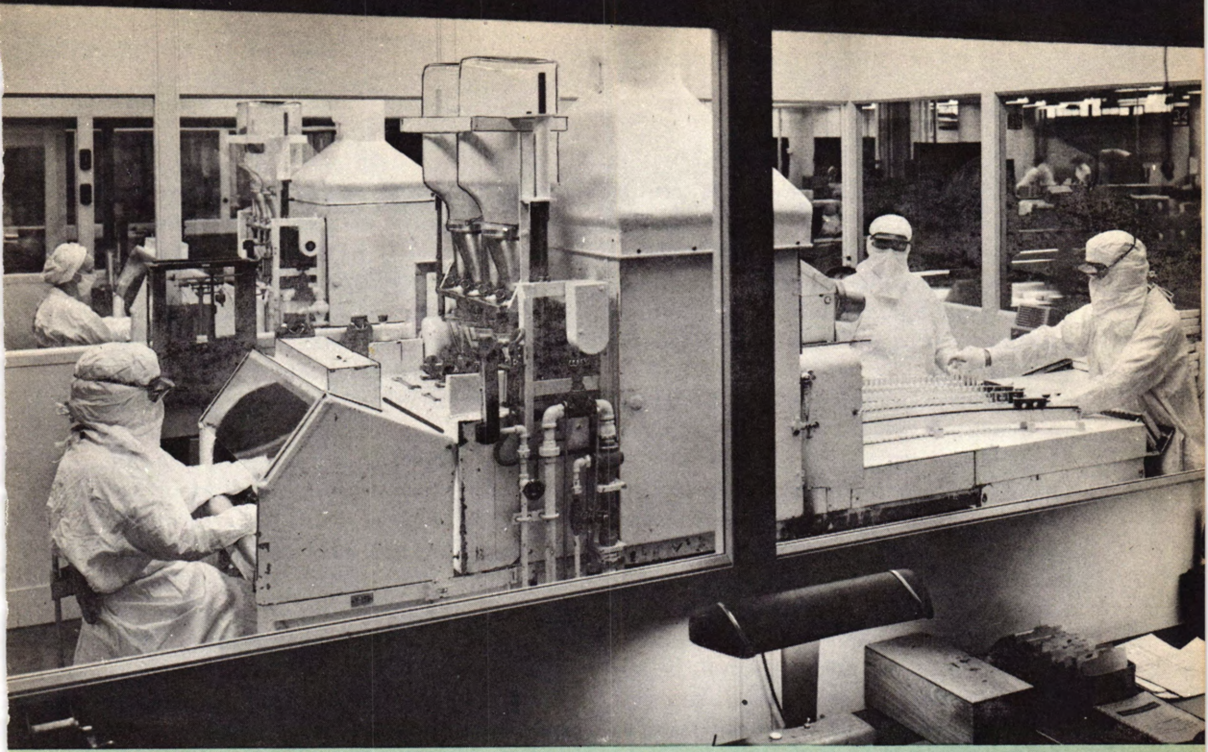
These are the companies which make drugs that are promoted to the medical profession. Most of these products are available only by prescription from a physician—hence the term "ethical." By contrast, the "proprietary" manufacturers make items which are advertised to the general consumer and sold without prescription. Some companies specialize in both methods, and virtually all of the major ethical companies have some "over-the-counter" products, such as reliable vitamin preparations.

Profits Plowed Back. Pouring millions of their earnings back into research, employing thousands of scientific researchers, constantly striving to find better products, these ethical prescription companies are fiercely competitive. There are at least 200 firms of some stature. The major ones, Eli Lilly, Chas. Pfizer & Co., Parke-Davis, Abbott Laboratories, Upjohn, Merck & Co., Smith, Kline & French, are closely pressed by a number of top specialty firms, such as Ciba, Schering, Mead-Johnson, and G. D. Searle. One spectacular new product can push a small company into a higher category—and it can fall just as speedily when a better product comes from a competitor's laboratory.

Birth of a Drug. How is a new drug born and brought into the medical market place? Let's look at just one antibiotic from Abbott Laboratories.

In the summer of 1951 a vacationing microbiologist from Abbott, Alma Goldstein, scooped up a handful of red soil from the Garden of the Gods in Colorado. She took the sample back to the laboratory to undergo screening with thousands of other samples coming in from all over the world. The organisms which produce antibiotic "wonder" drugs come from soil. While antibiotic substances are easily found in soil samples, those which may be useful are extremely rare. Since penicillin first went into production about 1941, only about a score of other worthwhile antibiotics have been isolated. This time the sample showed promise. Tests over a long period in petri dishes indicated that this particular substance decimated disease-producing bacteria.

But this was only the bare beginning. The micro-organisms producing this interesting new antibiotic next went to shaker flasks where they could multiply. Intricate testing procedures were launched to make sure it was not an already known antibiotic. The substance had to go through a continuous evap-



DRUG MANUFACTURING requires ultra-cleanliness. These masked and gloved workers are filling vials of Pentothal in a completely sterile room.

orater to become a concentrate, then into five-gallon fermenters to provide enough of it to begin experiments in mice. Given the generic name of ristocetin, it had proved to be effective in killing bacteria in broth. But would it do as well in blood serum? It did.

There was still a long way to go. Success with mice brought biochemists into the picture for extensive studies of Spontin's (ristocetin) molecular structure. There had to be produced a pure crystalline preparation that might eventually be used in human beings. Assay procedures were started to insure potency and quality. The patent department entered at this juncture too, and pilot plant operations began in order to produce enough for long-term testing.

Other technicians, meanwhile, studied fermentation, extraction, and purification techniques. Spontin also underwent a battery of tests to determine its power against various disease-producing bacteria. Pharmacologists continued to test it with rabbits and other animals, analyzing its reactions on living tissue. Specialists in the Development laboratories examined ways to produce it in large quantities.

In animals the drug was shown to be effective and non-toxic. It was decided to proceed with clinical trials. Now there could be no mistakes, no compromise with toxicity, purity, potency—for human lives would be at stake.

Spontin was successful, sometimes saving the lives of patients with infections that had yielded to no other antibiotic. Instead of merely inhibiting growth of disease-causing bacteria, the product was killing many types of them. Reports indicated to Abbott medical specialists that the drug was without question useful and in many instances live-saving.

The full story of its development was compiled (in a bulky folder filled with detailed data) and submitted to the Food

and Drug Administration in Washington, which decides whether a drug is safe for human use. Meanwhile, production had begun in 10,000 gallon fermentation tanks and in complex extracting equipment. Thus Spontin went into the drug pipelines—after more than six years of research.

Not every triumph of research and development is also a financial triumph. Most new drugs of real value will eventually return some profit to the manufacturer. A very few will return a handsome profit. Most have limitations, such as a limited market, dosage forms, competition. Spontin, for example, has a large molecule. It cannot at present be taken orally because not enough would be absorbed in the blood stream. Therefore, it went on the market as a sterile powder, which, in solution, can only be given intravenously. This tends to limit use to hospitals and to severe infections. It means there is less opportunity for it to be a "best-seller." It became instead a specialty product with minor profit potential.

Cost of Drugs. This, then, gives us a glimpse of what it takes to find and develop a new drug, and why many new drugs must have relatively high price tags. The average person knows that when he is ill, and his doctor prescribes one of the new, therapeutically more efficient drugs, he sometimes pays what appears to be a high price.

Actually drug expenditures in the United States are relatively not high, nor are prices on the average out of the ordinary. Per capita expenditures for drugs came to less than $11 in 1958 (compared to more than $32 for tobacco and $55 for alcoholic beverages). The average prescription price is just $2.90, and more than two-thirds of the 1,700,000 prescriptions filled daily cost less than $3. Only 6.1 per cent run more than $6 and only 1 per cent are $10 or more.

The older drugs have advanced little or not at all in price during the past few years, and some of them have been reduced greatly. It is the new drugs that keep up the average prescription price. In the treatment of rheumatism, for example, the average prescription price of the older sodium salicylate was $1.40, but the more effective, newer meticorten is $7.32.

Other factors bear upon the price of drugs. When two million dollars on an average must be allocated to the research, development, and promotion of a new pharmaceutical — before a penny ever comes in—the risks are obvious. In addition, the average life of a drug today is five years. By then it frequently is replaced with new or improved forms.

Stiff Competition. Obsolescence is both a blessing and a curse. Each company is dedicated to making its competitors' products obsolete. Toward this end, ethical firms spent about $130,000,000 last year. This meant that between five and ten cents of every sales dollar went into research. Probably no industry turns back so high a percentage of its own money into the quest for new products.

At the same time new drugs are the lifeblood of the industry, for these are the items in the post World War II period which have brought about the pharmaceutical "boom." If the risks are high, so are the rewards. Take Parke-Davis' major antibiotic, Chloromycetin. Introduced in 1949, it achieved annual sales of $52,000,000 by 1952. Then came adverse medical reports, and sales slipped to $26,000,000 in 1953 and 1954. Chloromycetin again proved its value and by 1957 had climbed to an annual figure of $53,500,000. There is always the possibility, of course, that newer antibiotics may cut sharply into this most profitable item.

Some factors operate to keep most drug prices relatively low. Through large scale

production, the prices of the broad spectrum antibiotics have been slashed by 65 per cent since 1949, while cortisone's prices have plummeted 90 per cent. Competition forces a high degree of efficiency and a rather uniform level of prices. Few industries better exemplify the free enterprise system, with all of its risks and rewards.

Government in Research. A new concern of the ethical pharmaceutical manufacturers in 1958 was the Federal government. It was engaging in research on a major scale through the National Health Institutes. Congress appropriated funds in the hope that "crash" programs would bring about cures for cancer, heart disease, and other killers. While approving basic research by government, industry spokesmen had reservations about a "wholesale" approach.

"The idea that broad government projects will bring magic results is based on twin illusions," declared Dr. Ernest H. Volwiler, renowned chemist and Board Chairman of Abbott Laboratories.

"The first is that the job won't be done rapidly unless the government sponsors a major share. The second is that the government can obtain enough qualified scientists to do the job without robbing other equally important projects of trained investigators."

John T. Connor, president of Merck & Co., said that "there is real concern that the public is being misled into believing that you can buy discovery with money, that nine times as much money will cure nine times as much disease."

Actually, the ethical firms are already using a major portion of really skilled men and women, and training as many new ones as they can find. Competition for able personnel is as stern as competition for markets.

Nevertheless, Congress granted $294,383,000 to the Health Institutes — $83,000,000 more than requested by the Bureau of the Budget.

Pricing and Patents. A second area of concern involved government inquiries into drug prices and patents. The rapid growth of the industry and its stable earnings record attracted attention. In a sense this was to be expected as the price of success, a price that had come to many other industries through the years. Now it was the drug industry's turn, and the high level of public interest in health matters added further impetus.

The first government salvo hit the five manufacturers of the Salk vaccine, who had made prodigious efforts to produce the vaccine quickly and in volume. They succeeded, and in the process reduced the cost several times. But the postscript was a government charge of price conspiracy. Then in August, 1958, the Federal Trade Commission charged six antibiotic manufacturers with price-fixing of tetracyclines, in recent years the most successful class of antibiotics. It also charged the major producer, Chas. Pfizer & Co., with false and misleading statements in obtaining a patent on the drug. The charges were denied. They presaged long court action and further investigations.

Those arguing for changes in patent laws believe that the existing system tends to create monopoly, close markets to competitors, and enable the holder of the patent to set prices as high as he wishes. Most often cited are the relatively low prices of penicillin, which was open to all companies, and the relatively higher prices of the newer antibiotics, protected by manufacturers' patents. Actually, many other factors are related to pricing, and the industry has been especially blunt in defending the patent system.

Although Abbott Laboratories was not involved in government charges, Dr. Volwiler earlier reflected the industry viewpoint when he said "it is incomprehensible that the patent system, so uniquely American in nature, should be so misun-

THE SEARCH FOR NEW ANTIBIOTICS continues steadily in the laboratories of pharmaceutical manufacturers. Samples of soils from every corner of the globe are examined by the thousands. Filtrates from soil mold growths are placed in these petri dishes, inoculated with test organisms, and then assayed for potency. This is an early step in a long chain of complex tests to determine if an antibiotic is useful and safe for human therapy.

derstood. Actually, patents are issued to encourage disclosure and avoid secrecy, to encourage and expedite further research, and to stimulate competition rather than to stifle it."

Research Farms. Looking ahead, the array of new medicinals promised to be of ever-growing importance in the maintenance of health and the treatment of disease. Many companies were expanding rapidly into the veterinary field. Such firms as Eli Lilly, Abbott, and Pfizer own large research farms where they carry on studies in animal nutrition, animal disease, and crop control. These and other companies also sell extensively throughout the free world. In many instances from one-quarter to one-third of their sales are in foreign countries.

Life-saving and health-giving drugs and products comprise one of the basic means by which mankind is striving for a better life—something that has been placed within reach by the enterprise of drug manufacturers and the wonders of science and technology.

Politics - U.S.A.

By GODFREY SPERLING, JR.,
Midwest Editor, *Christian Science Monitor*

Democratic Landslide. In American national politics 1958 was, in the main, a Democratic year. Of 34 U. S. Senate elections this fall, the Democrats won 28 for a net gain of 15 seats, making the new Senate 64 Democrats and 34 Republicans, compared to a pre-election Senate of 47 Republicans and 49 Democrats.

Of 435 U. S. House of Representative elections, the Democrats won 283 for a net gain of 48 seats. The new House will have 153 Republicans compared to 200 in the pre-election House which had 235 Democrats.

Democratic Senate gains came from California, Connecticut, Indiana, Maine, Michigan, Minnesota, Nevada, New Jersey, Ohio, Utah, West Virginia, (2), Alaska (2) and Wyoming.

Democrats unseated Republican Governors in California, Maryland, Nevada, New Mexico, Ohio, South Dakota, Wisconsin, Wyoming, and Nebraska.

Democrats won control of 13 formerly GOP-run State law-making bodies in Ohio, California, Connecticut (where both Houses became Democratic), in Idaho, Illinois, Indiana, Massachusetts, Oregon, Rhode Island, South Dakota, Utah, Wisconsin and Wyoming. In Michigan, the Democrats won a tie in a formerly GOP House.

In state shifts favorable to the Republicans, they gained governors in Arizona, New York, Oregon, and Rhode Island.

Extensive Democratic gains in the governor races left them with 35 to the Republicans' 14.

Highlights. Most interesting highlights in the election, perhaps, came in California, New York, Wisconsin, and Indiana.

California Senators William F. Knowland, Republican majority leader, running for governor, and Gov. Goodwin J. Knight, running for the U. S. Senate, were defeated respectively by Democrats Attorney-General Edmund G. (Pat) Brown and Representative Clair Engle.

Main feature of the California race was the outspoken position taken by Knowland in favor of right-to-work legislation. This position stirred out an unusually large labor vote, most of the workers voting Democratic. This political development, together with the dilution of party strength stemming from a Knowland-Knight feud, contributed largely to the Republican defeat.

In New York, Nelson A. Rockefeller emerged with a decisive victory over the Democratic Governor, Averell Harriman. It was by far the most impressive Republican showing of the election. Rockefeller —campaigning quite hard, handshaking from morning until night—ran as a moderate Eisenhower Republican.

In view of the defeat of Republicans elsewhere, the Rockefeller victory is being regarded as a personal one. The result

PRESIDENT EISENHOWER confers with Sec. of State John Foster Dulles shortly before Dulles left for a Baghdad Pact meeting. Late developments in the Mideast weakened the pact.

automatically puts the New York Governor among the possible GOP aspirants for the presidential nomination in 1960.

A capsule commentary on the election and the change in voter viewpoints could be found in Wisconsin and Indiana. There two liberal Democrats are now sitting in the seats once occupied by right-wing Republicans, the late Joseph R. McCarthy and William Jenner.

William Proxmire in Wisconsin actually had been in the McCarthy seat for a year as the result of a special election. His 1958 victory gives Proxmire a six year term.

In Indiana R. Vance Hartke, Mayor of Evansville, won by a lopsided margin over Indiana's Governor, Harold W. Handley. Jenner had retired from the Senate, giving his support to Handley.

In the early wake of the election, it was too quickly assumed: "This is the end of Jenner. Look, a liberal Democrat is sitting in his seat." Instead Senator Jenner seems likely to come back now as a GOP candidate for governor in 1960. He will probably lead his state's delegation, and he possibly will emerge as a favorite son candidate for the presidency.

Inter-Party Struggles. What seems to be shaping up, of course, is another tug and pull within the Republican Party reminiscent of the Taft and Eisenhower struggle in 1952. The conservatives

 POLITICS—U.S.A.

at this point will accept Vice President Richard M. Nixon, particularly after his sharp attack on the Democrats during the campaign. But if in the end it should be Mr. Rockefeller against Mr. Nixon for the nomination, the battle could be of 1952 proportions—particularly if Mr. Eisenhower should swing his open support to Mr. Rockefeller.

On the Democratic side one of the leading features of the campaign was the emergence again of Adlai E. Stevenson as a possible third-time candidate for the presidency. The victory of Pittsburgh's Mayor David L. Lawrence, as Governor of Pennsylvania, will help Stevenson immensely. Lawrence remains an avowed, outspoken, strong Stevenson supporter. As Democratic National Committeeman, Mr. Lawrence was one of the top kingmakers in the Democratic Party before the election. Now from the forum of governor he will be even more powerful in his espousal of Stevenson.

Also in Ohio the ascendancy of Michael V. DiSalle, former Toledo mayor, as the new Democratic Governor is bound to react in favor of Stevenson. DiSalle has said that he would support Stevenson in 1960.

From California, too—where Stevenson's victory in the 1956 primary indicated a sizable popularity—new strength for his nomination emerged. Both Brown and Engle could very well be in the Stevenson camp.

Among other possible Democratic presidential candidates:

Senator Kennedy, with a lopsided 3 to 1 victory in his state, emerged from the election with even greater prestige.

In Missouri Senator Symington's easy victory there increased his chances of getting the nomination.

In Michigan, Governor G. Mennen Williams, winning an unprecedented sixth term in Lansing, probably improved his presidential outlook, although there are few who believe that the South would accept Governor Williams.

The Religious Factor. The impressive Kennedy victory and his enhanced chances for the presidential nomination, brings up the subject of religion in politics. There is some evidence that in this election fewer people were making their decisions of candidates on the basis of religion. Roman Catholic candidates, for example, easily defeated Protestant opponents in at least five predominantly non-Catholic states. Conversely, Catholic candidates lost out to Protestants in at least three states of large Catholic populations.

Among the Catholic winners were Edmund G. (Pat) Brown, who defeated Senator William F. Knowland, a Methodist in California; Michael V. DiSalle, who unseated Governor C. William O'Neill, a Baptist in Ohio; and Mayor Lawrence, a Catholic, who defeated Arthur T. McGonigle, a Protestant in Pennsylvania.

Two Catholic Senatorial aspirants, Eugene J. McCarthy and Philip A. Hart, deposed two Protestant incumbents in Minnesota and Michigan respectively. Senator Edward J. Thye, a Lutheran, and Senator Charles E. Potter, a Methodist.

In Wisconsin, Senator Proxmire, an Episcopalian, defeated his Catholic challenger, Rowland J. Steinle.

In the East, Catholic Frank S. Hogan, lost out in the New York Senatorial race to Presbyterian, Kenneth B. Keating.

In Maryland, Catholic Thomas D'Alesandro failed in his bid to unseat Episcopalian, Senator Glenn Beall.

These results, however, cannot be taken as conclusive evidence that religion is no longer a part of the political picture. So often in the off-election years, trends are paramount in voter decisions, whereas in the presidential campaign, the man is the important factor in the vote. Thus, it will take 1960 and a Catholic

FORMER PRESIDENT TRUMAN was invited to Yale University to meet informally with students and faculty members—and enjoyed it.

candidate for president or vice-president to bring about conclusive evidence one way or the other on this particular subject.

Analyzing the Results. What were the major issues—the major reasons for the Democratic victory? Some have called it a trend—a trend, perhaps, based upon the usual custom in this country to vote against the party that is in power in an off-year election. Perhaps the leading factor was an economic one—a recession that held on too long for the Republicans to avoid voter ire. There were still lots of people who were feeling the effects of the recession, or had it in their memory when they went to the polls.

On the Negro Chicago South Side, a number of those polled indicated they were out of work and that they had friends who were not working. These Negroes, along with those in Detroit, Milwaukee and Minneapolis, indicated that they were still voting for economic reasons more than for civil rights reasons. Voter after voter among the Negroes continues to say "I never had it better than under Roosevelt and under the Democrats."

Also of economic import, was the right-to-work issue which played a role either patently or implicitly, in a number of elections—in California, which has been mentioned, and also in Ohio, Indiana, and Iowa, among other states. In many states this particular issue was imposed upon the Republican organization. Businessmen felt that this was the year to get the law through. The law, incidentally, although it differs in wording and

effect in various states, amounts to this: Union membership can no longer be made a prerequisite to working.

It has been said that except in Michigan, labor does not vote as a block. Yet in this particular election, primarily because of this right-to-work legislation, there was widespread evidence that the Democrats pulled in much, if not most, of the labor vote. Thus, it may be the Republicans committed one of the gravest strategic political blunders in years. Certainly, if this block voting should persist in the next election, and in subsequent elections, Republicans will come to regret their pushing of right-to-work legislation.

Another highlight of the campaign was the role played by President Eisenhower. Early in the campaign, the President assumed a posture above the field of conflict. Late in the campaign he took a far-ranging tour. He moved from Cedar Rapids out to Abilene, talking in high level terms in the main, speaking about the necessity of a peace policy, based upon principle. However, egged on by Republican organization people, Mr. Eisenhower, in California, finally started to bring his guns to bear upon the Democrats. He called his Democratic opponents radicals, referring specifically to the Northern Democrats. He called them boondogglers. He hit them hard.

Stevenson's quip at this point, "Now we are treated to the spectacle of an Old Nixon joined by a New Ike." But the Stevenson jab did not end there. He added, "Or perhaps I should say a new speech writer."

For a President to talk politics when he felt the occasion demanded it is really an American norm. It has been done by the best and by the more mediocre presidents. The President's effort to stay above partisanship was his own idea and the record shows that the try was much more than a token effort. Of the President's coolness to participation in partisanship,

ORVAL E. FAUBUS, Governor of Arkansas, kept up his war with the Federal Courts in 1958.

Marquis Childs writes, "He has after all been perhaps the most non-political President in our history—more non-political than Ulysses S. Grant, who was the only other West Pointer to hold the office."

Foreign policy was injected into the campaign, although there was quite a discussion among the leaders of both parties on how far the campaigners should go in discussing this issue.

After the President had urged restraint, Adlai Stevenson said that in a free country foreign policy "concerns every American, sometimes to the extent of life and death"—and that this subject "always has been, and always will be of public concern in peace time."

Defense of the offshore island in the Formosa area, of course, was one of the big questions of the day. Both the President and the Vice President, together with other Republican leaders, defended the administration's position there. The

administration's position, was this in essence: "To let the Chinese Communists have their way on those two little islands would welcome further aggression. The line must be held there."

Democratic critics, including Mr. Stevenson, felt that among other things the administration's off-shore island policy was a form of "brinkmanship," an unnecessary stand in view of the risks being incurred.

Nixon's hard-hitting campaign, in total, might be assessed as a loss for him personally and for his personal aspirations as a possible presidential nominee. He remained, of course, in the van of GOP presidential hopefuls. None the less, the loss of Knowland and Knight in California, was a blow to the Nixon chances. Furthermore, the hard-slashing Nixon bid of 1958 was to the right-wing of the Republican party. The right-wing liked Nixon. In Indiana State chairman Robert Matthews said, "We will take Nixon, he is a professional, he is a fighter—we like him." At the same time, however, Mr. Nixon did not endear himself to the more liberal elements within the Republican party and to many independents who had had a change of heart about Nixon after his courageous tour of Latin America.

By 1960 the Republican leaders may well remember that according to responsible polls there are still more Democrats in the United States than Republicans. Thus, knowing that they will need independents and some Democrats to win, they may very well come up with another candidate, a challenger to Nixon. Of course, it may well be that Nixon will seek to win over these people during the next year or two by stressing his internationalist position and his feelings on Civil Rights. This, of course, remains to be seen.

Deep Changes at Work. There were deep sociological changes at work in the election results wrapped up in the strong victory for the Democrats, particularly in Ohio and Wisconsin and in part, in Indiana, Illinois, and Iowa.

In Ohio, for example—that state just isn't what it used to be, and that was shown very conclusively in the election. Industry has been popping up everywhere. Ohio has passed Pennsylvania as the second largest commercial state next to New York. Ohio now has more cities over 10,000 population than any other state. Labor's ranks keep swelling. So do the ranks of the Democratic party. A similar population shift is at work throughout much of the once predominantly agricultural midwest. All this, of course, gave strength to the voice of dissent against the right-to-work legislation in all these areas.

A correlative of this point perhaps is the fact that right across the heart of the Midwest, starting with Ohio, moving across Indiana into Iowa and into Kansas, too, the big state issues centered on labor, or economics, or something that was miles away from the usual subject, the farm. This possibly reflects better farm prices which, of course, have erased the bitterness of basic farm political protest. More than anything, however, the long-time dwindling of the farm population is being evidenced.

No look at the 1958 political primary campaign would be complete without a few words on the defeat of Harold Stassen in Pennsylvania by pretzel manufacturer Arthur T. McGonigle. The former wonder boy from Minnesota may have reached the end of his long campaign trail. He continued in his efforts, however, to sidetrack Nixon as a presidential candidate.

Some newspapers were prone to put the blame on Eisenhower for the over-all November defeat. Those reporters, however, who talked to the people—to the farmers, to the people in the villages and in the cities—found otherwise. The Presi-

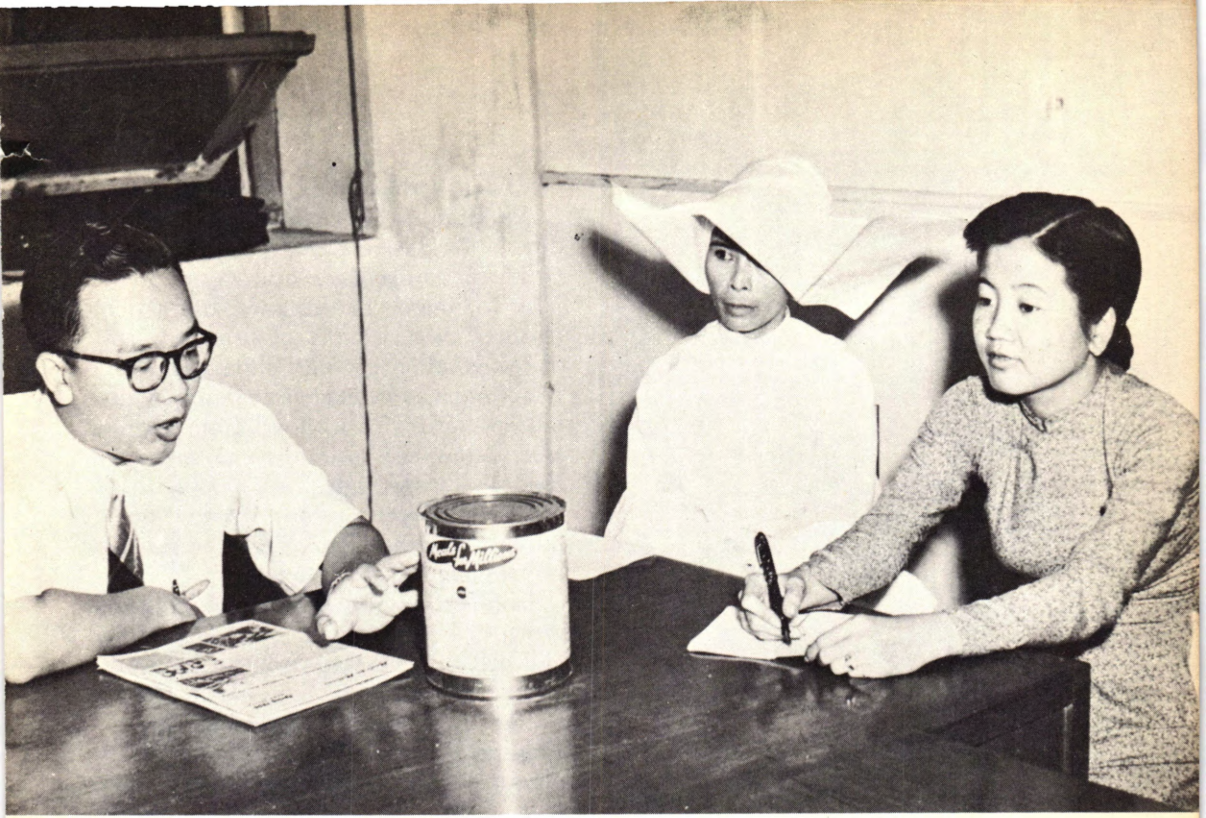
TOP DEMOCRATS Eleanor Roosevelt, Sam Rayburn, and Adlai Stevenson met at opening of "Sunrise at Campobello," a play about Roosevelt.

dent's popularity seemed to be still holding up.

A footnote, too, should be made to civil rights and the election of Governor Orville Faubus in Arkansas. Certainly this lopsided victory for Faubus strengthened him in his assertion that he represents the viewpoint of his people on segregation of the schools.

At the same time, of course, the Faubus victory has its special impact on the Democratic Party as a whole. The question remains, of course: What will happen at the Democratic Convention in 1960? Will a strong Civil Rights plank split the party? National Chairman Paul Butler of the Democrats says that a strong civil rights plank will be a part of the Democratic platform and that the South will have to take it or else. Thus, the 1960 conventions shape up—both from the Republican and the Democratic standpoints—as particularly interesting ones.

PORTUGUESE CHILDREN, poor but gay. Portugal manages to stay out of the news. But it is not a case of "no news is good news." In fact, the little news that trickles out of the country is bad. Portugal is under a dictatorship that represses all opponents. Gen. Humberto Delgado made an unsuccessful bid for power in 1958, but was defeated by Rear Adm. Rodriguez Tomas. Salazar, the real power in Portugal, frankly states that "it is not convenient to have an opposition party."



PUBLIC HEALTH EXPERT Dr. Philip Tho explains the use of multi-purpose food distributed by Meals-for-Millions to Asian social workers.

PROTEIN

Building Blocks. Proteins, so necessary for the growth and upkeep of our bodies, are in short supply in many parts of the world. The word comes from the Greek *proteios,* meaning primary or holding first place. Wherever this important nutritional element is inadequate there is low resistance to infection and the disease rate is high. Children are retarded in development, and, when fed the high carbohydrate diet that prevails where proteins are scarce, usually have distended stomachs and spindly arms and legs. Even a slight increase in protein consumption results in better health.

What are these magic chemical building blocks? The amino acids are a main constituent, and these vary in potency and function. High-grade protein foods, with a variety of amino acids, are meat, fish, milk, cheese, eggs; vegetable proteins of good grade are found in cereals, nuts, beans, and peas; low-grade proteins are in gelatin and gluten.

Perishable and Costly. In relation to other foods, high-grade proteins are expensive, and in their natural state perishable. Therefore, in the poorer countries, the use of more and better protein foods at low cost has been a scientific objective. The United Nations International Children's Emergency Fund (UNICEF) has

SARAWAK VOLUNTEER carries a drum of milk powder from UNICEF distributing center back to his native village.

played a life-saving role, with its distribution of dried skim milk. From the United States millions of pounds of powdered milk were shipped and distributed to the children, pregnant women, and nursing mothers of Latin-America, Southeast Asia, and other protein-short areas. Now some of the countries included in this vast supplementary feeding program are learning ways of supplying themselves. The first plant for turning buffalo milk into powdered form is now in operation at Anand, India. The product is being given to the underfed children of this region.

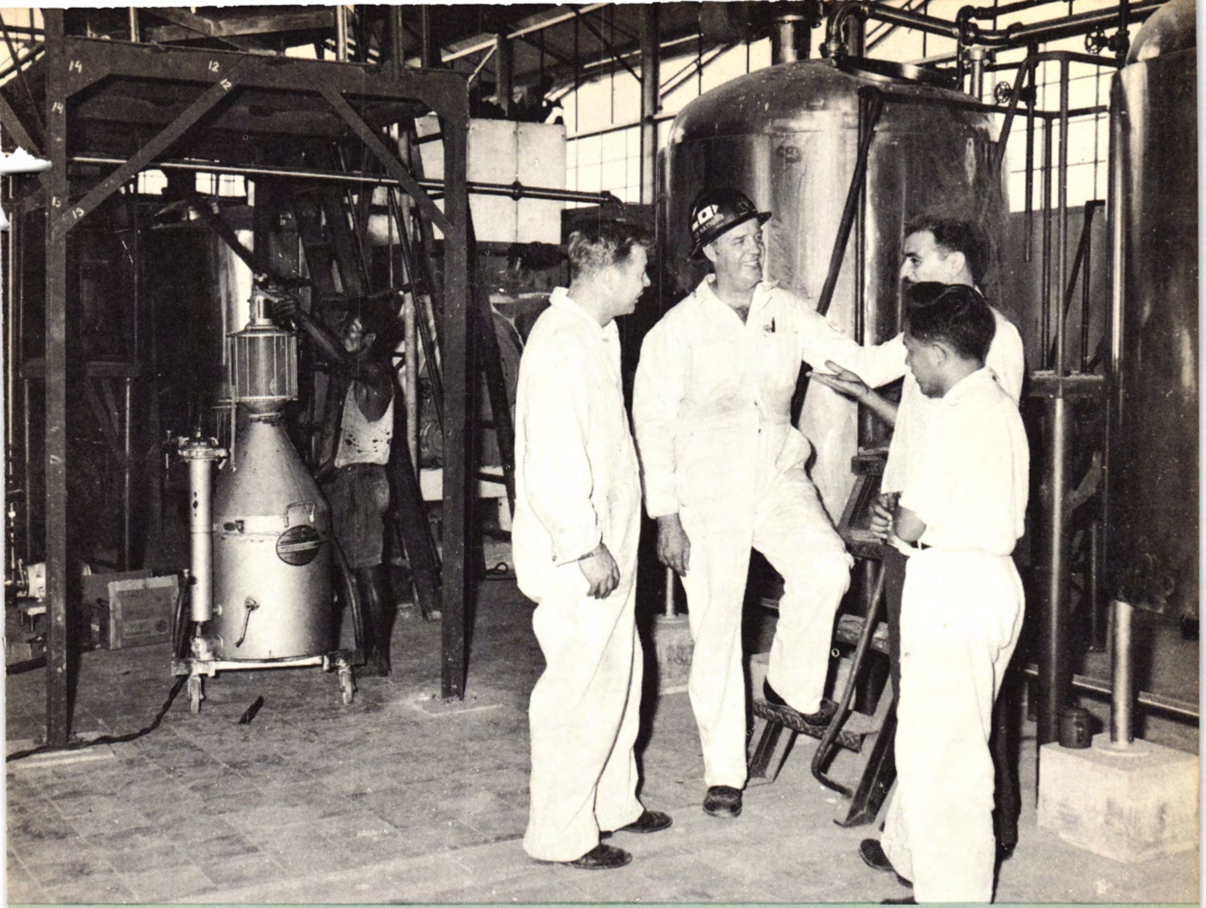
Synthetic Milk. Even more interesting is the substitute milk manufactured in a plant near Jakarta, Indonesia. The formula for this nutritious beverage was developed by United Nations technical workers. It is called "Saridele," and is composed of pulverized soy beans, peanuts, and malt. The resulting liquid is white and resembles malted milk in flavor. Children take to it with enthusiasm.

According to S. M. Keeny, UNICEF's director for Southeast Asia, other protein-rich foods can be made from native products. Indonesia, for instance, has a rich resource in its supply of fish, but lack of refrigeration prevents shipment. Fish, therefore, may be made into flour—without any taste of fish; flours from sesame seed, cottonseed, peanuts, and soybeans have the same high-protein content. A very small quantity of any of these flours, mixed with other foods, adds the needed protein element to the meal.

From Sea Plants. British biologists are growing tiny sea plants in the laboratory and extracting protein from them. Similar experiments have been carried on at Woods Hole Marine Station in Massachusetts. The growth of the plants, called phytoplankton, increased to such an extent with the help of chemical additives that the crop could be processed as a source of protein in powder form. Present research is directed toward the growth of a pure crop of one species of marine plant of high protein content.

In Japan, the mass production of a new food from an alga, chlorella, is planned. Chlorella is high in nutrition value and low in production cost. The cells exist in large quantities in ponds and they rapidly multiply by division. This protein-rich food will be prepared in liquid and powder form.

Minimum Requirement. The daily protein requirement might be compared to the gasoline consumption of an idling automobile engine. It is unrelated to activity or the amount of work performed. This idling rate of energy expenditure is called the basal metabolism. The minimum requirement ranges from one to one and a half ounces of pure protein daily. About half of this requirement might come from any of the following: an egg, an ounce of cheddar cheese, three ounces of meat, fish, or poultry, one pint of skim



TWO AMERICAN ENGINEERS, left, with an Iraqi and an Indonesian chemist, work together on the development of a new liquid soybean food at a production plant in Indonesia. The product, called "Saridele," provides a high protein drink in a country where milk production is slight.

milk; the other half might come from assorted breads, cereals, and vegetables normally included in a balanced diet. Protein intake in excess of the amount needed for body growth, repair, and upkeep becomes a source of caloric energy.

Multi-Purpose Food. Another high protein food has become available in certain parts of the world where malnutrition is widely prevalent. The formula for this food was devised by a biochemist of the California Institute of Technology. An American non-profit organization, Meals for Millions, Inc., first manufactured and distributed it as a food supplement for undernourished children. A multi-purpose food, it contains protein, minerals, and vitamins. Two ounces of it, costing about three cents, furnishes one-third of a child's essential protein and vitamin daily needs. The food was tried out in India where dietary deficiencies are almost universal. Indian chemists, using native products, have adapted the preparation and it is now manufactured in quantity in that country. The formula calls for 70 per cent defatted peanuts, 30 per cent roasted flour, minerals, and synthetic vitamins. In India it can be made for about half the cost of the United States product and is sold at one and a half cents an ounce. It has been distributed in 14 Indian states, and has proven popular everywhere. Spiced varieties are now obtainable. Orthodox Hindus accept it since it is a pure vegetarian food.

CHIANG KAI-SHEK, now past 70, becomes less sure with the years over the possibility of an invasion of mainland China.

QUEMOY

Small War. Several small islands on the doorstep of Communist China were the focus of American attention all through the final months of 1958. More than once during this period, it seemed that these insignificant bits of territory might provoke a war.

Unlike Formosa and the Pescadores, which the United States has formally pledged to defend, Quemoy, the Matsus and other tiny islands off the coast of South China, lying in or near the harbor of Amoy, were under no specific guarantee of protection. Historically, they are a part of China, the nearest one only a mile or two from the mainland. In 1949, when Chiang Kai-shek's forces were making their escape from China, these islands were taken over by units of the retreating army. Quemoy is a rather bare island, approximately fifty square miles in area. The Nationalist garrison strengthened Quemoy's defenses, and began to build roads and plant crops, establish schools, and generally improve the life of the people. Quemoy produces sorghum, wheat, and sweet potatoes. Fishermen ply their trade in the surrounding waters.

From their stronghold on Formosa, 100 miles to the east, the Nationalists had been gradually building up their forces on Quemoy, until they had about one-third of their entire army stationed there—some 50,000 men. It is not clear whether this was done with the knowledge and approval of the United States. But the Communists, watching this menacing concentration from the mainland, may have feared an all-out attack on their coastal forts. Perhaps they thought Chiang's oft-expressed hope over the years, an invasion of the mainland, was planned.

The Red Chinese proceeded to strengthen their defenses. They had plans of their own for Quemoy, which in the Mandarin tongue is known as Chimen — Golden Gate. According to report, they wished to recover it and build it up as a naval base. The city of Amoy on nearby Amoy Island, was formerly one of China's principal ports for the country's southeast Asia trade.

There had been a series of air incidents over Quemoy in 1954, when the Communists had announced their intentions of adding the islands to the mainland, at which time they had blasted the United States for its protection of Chiang Kai-shek.

On August 12, several Communist planes—MIG 17's—engaged some Nationalist planes, which reportedly downed two of the Red jets. A few days later the islands were strafed, and the Reds stepped up their broadcasts, announcing their intention of ending U. S. efforts to encircle China. The Nationalists were forced to keep the island garrisons supplied with food and munitions, and with the help of U. S. naval units, this was done. The American ships convoyed the National-

SWORDS AND PLOWSHARES side by side on Formosa. Guns are on the alert as Nationalist Chinese farmers proceed with their daily tasks.

ists to within three miles of shore, then withdrew. Some Nationalist LST boats were lost in these landing operations. The strafing and the aerial engagements continued. Nationalist planes were, it was reported, armed with the newest of U. S. missiles, and showed great superiority in the air.

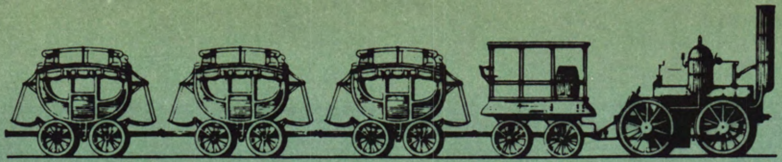
Policy Unclear. Public opinion in the United States was at first indifferent to this small shooting war, half way round the world. But soon Secretary of State Dulles and President Eisenhower were being asked sharp questions, specifically to define U. S. policy. Over a period of some weeks, there were many and various statements from these two and others in the administration. Generalissimo Chiang Kai-shek added to the confusion by conveying the impression that the United States would help him defend the islands. And Madame Chiang lectured in the United States on the urgency of more help for the embattled Nationalists. It may be that the administration deliberately wanted to keep its intentions unclear. The public was told that the islands were necessary to the defense of Formosa; then told they were impossible to hold; and, again, that they were not worth a war. The State Department's mail showed heavy odds against U. S.

HEAVY SHELLING from Communist artillery on mainland China kept the people of Quemoy living in trenches and shelters such as this.

commitment over Quemoy. The British view was that the Red's bombardment was for the purpose of demoralizing the island's garrisons and civilian inhabitants, rather than to pave the way for invasion.

A sort of a truce went into effect for three weeks during which the bombing ceased and U. S. ships stopped convoying. During this period many women, children, and aged persons were removed to Formosa.

Negotiations. Facilities for negotiating with Red China existed, and it was decided to use them. The U. S. ambassador to Poland, Jacob Beam, was asked to start talks with his Chinese opposite number in Warsaw. While the United States was willing to continue the informal truce, Chiang's behavior was unpredictable. Dulles flew to Formosa to talk to Chiang, and persuaded the leader, it appeared, to renounce the use of force to attain his aims. Random bombing, on alternate days, was resumed. The people of Quemoy, now adept at living underground and dodging shells when in the open, tried to carry on their ordinary activities.



RAILROADS

Passengers Scarce. Great American fortunes have been based on profits from the nation's railways, and in the past most railway shares have been considered the soundest of investments. Also, in the not distant past, it was the ambition of small boys to grow up to be a train conductor or engineer. Not so today. The decline of the railways, a slow change that has been taking place over the past quarter of a century, has affected both profits and labour. The former have dwindled, and in many cases vanished.

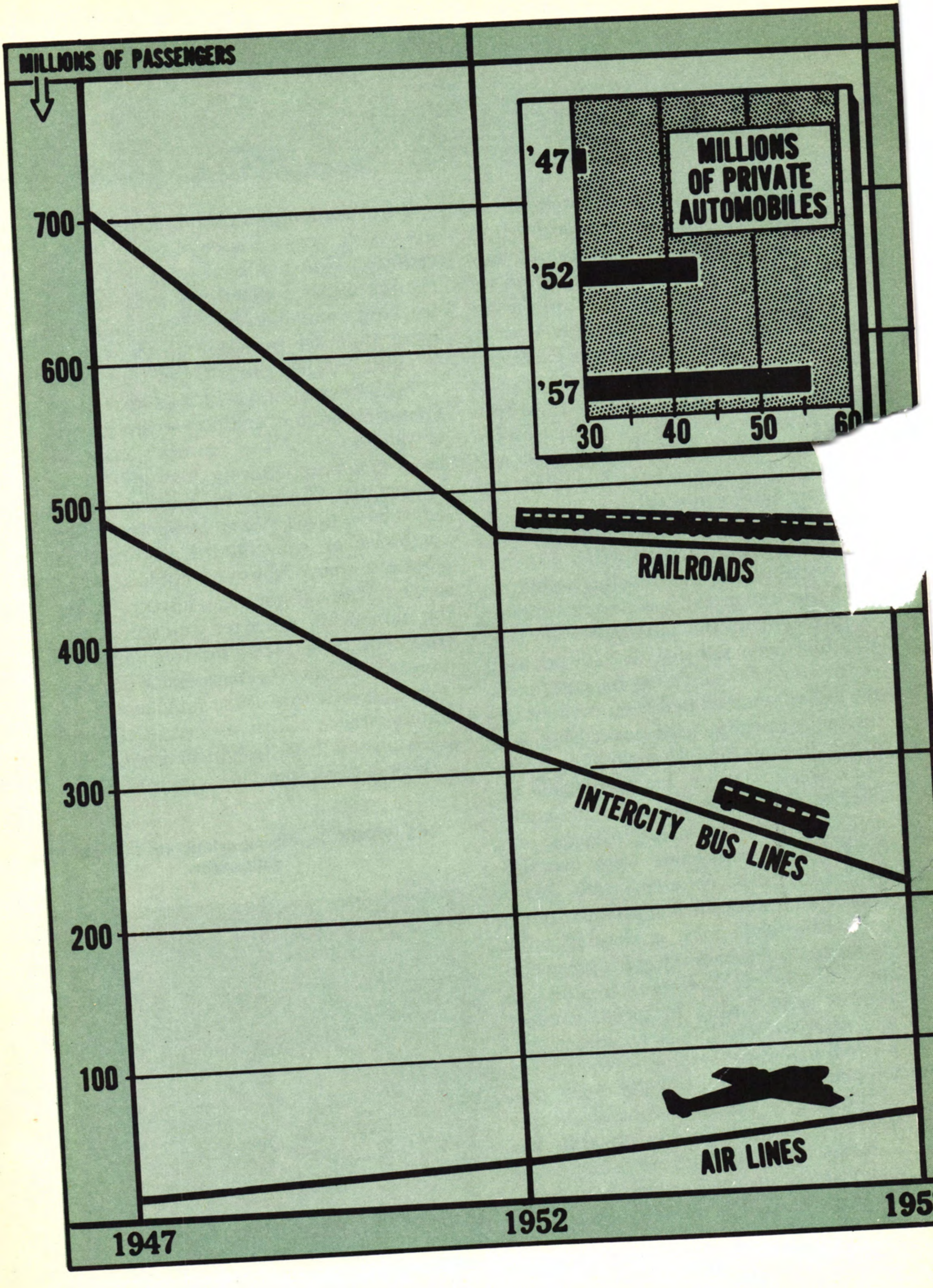
Passenger traffic has fallen steadily, with the bus lines and airplanes now carrying the bulk of the traveling public. In 1939 the steam railroads were carrying 65 per cent of the passengers; in 1956 this had been reduced to 34.9 per cent of the total. In competing for passengers, the railways which had been without rivals for a century, tried advertising, and many other devices. Complete modernization was too costly, but they made belated improvements in service and equipment. Better washrooms, lounges, and glass-domed scenic cars were installed; bars and snack counters were added; some trains were air-conditioned, others had radio-telephones; enclosures called roomettes replaced the swaying green curtains of the old Pullman sleeping car. Factors contributing to speed, comfort, and safety—from Diesel engines to improved signalling systems — were given top priority. None of this did much good in the face of the attractions of cheaper travel by bus and speedier travel by air. In recent years, airplane prices have come down almost to the level of train fares. On some runs it is actually cheaper to travel by air.

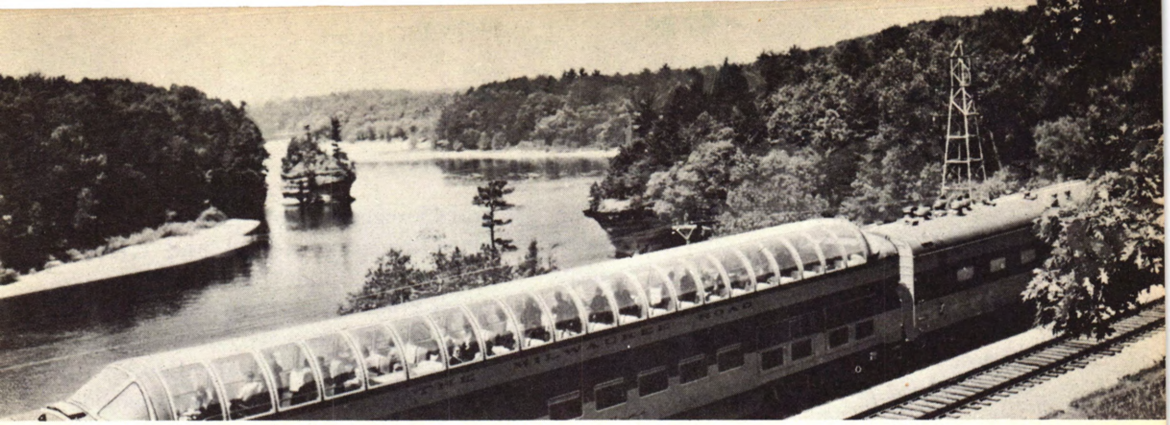
Truck Competition. Hauling freight was always the major source of profit for the railways. This too is bringing in smaller returns under competition with the big trucking companies. In 1939 the rails had more than 64 per cent of the freight hauling, in 1956 only 49 per cent.

With less business, with high taxes, and mounting costs of maintenance and operation, some of the country's railways have given up entirely and gone into bankruptcy. Government loans and subsidies have saved others. Some lines have combined or consolidated in order to eliminate competition and duplication of service. Many, if not most, have curtailed the number of passenger trains they operate. All have asked for frequent fare increases to stay in business. This has been especially true of the suburban commuters' trains, which as a rule haven't much income from freight hauling.

Decline Continues. As common carriers,

HIS WORK is all-important to the old-time railroader.


MILLIONS OF PASSENGERS
700
600
500
400
300
200
100
MILLIONS OF PRIVATE AUTOMOBILES
'47
'52
'57
30
40
50
RAILROADS
INTERCITY BUS LINES
AIR LINES
1947
1952



WISCONSIN DELLS, seen from a full-length dome car—an improvement which many railways have added for the pleasure of passengers.

the railways are not free agents, to run trains or not as they see fit. Requests to reduce service or to increase fares or freight rates, must be decided by federal or state agencies. When a line is allowed to withdraw any passenger trains from [illegible]chedule, the public shouts loudly in [illegible]est. According to one railway official, the public wants to hear the train's whistle—even though it doesn't patronize the train.

A few more figures on passenger traffic complete the story: a decline of 10 per cent in 1957 from the 1956 total; in 1958, the decline was from 10 to 20 per cent. The railways as a whole lost $700 million carrying passengers in 1957. In this year the New York Central lost $50 million on its passenger business while the nation's No. 1 carrier, the Pennsylvania system, lost more than $57 million. The Pennsy lost $15 million in the first quarter of 1958 on its over-all operation. If this trend continued through the year, it would be the second year in the company's 112-year history that it failed to operate at a profit.

Trainless Towns. Today many large towns, as well as hundreds of small ones, have no train service at all. Paducah, Ky., with a population of 65,000, has no railway. In Wisconsin, the people can no longer travel by rail from Madison, the capital, to Milwaukee, the largest city. Twenty trains a day formerly ran between these two cities. In St. Louis and many other cities the union station shares its space with bus lines, the railways' hated rivals.

Congress to the Rescue. In addition to the various steps taken by the railroads themselves, Congress approved in July, 1958, a many-sided plan for aiding them.

The plan tightened rules on trucking of farm commodities and imported goods; set up standards for curbing competition from trucks and barge lines; gave railroads the right to ask the Interstate Commerce Commission, rather than state agencies, for authority to terminate passenger-train services; offered up to $500 million in federally guaranteed loans, for capital equipment and maintenance. Congress also repealed earlier the 3 per cent federal tax on freight shipments, giving a promise of more business.

As of now, it doesn't appear that the railways are going to become obsolete, like the draft horse and the village blacksmith shop. The railroads are a vital part of the country's transportation system. They represent tremendous amounts of capital, plant, and equipment. And even though the number of men employed on the railroads has dropped nearly a million in the past 25 years, the occupation of railroading, with its strong traditions, is not extinct. And there are a certain percentage of travelers, who, disdaining planes and buses, prefer the smooth comfort, the unexciting efficiency, of the trains.

Records for Children

Let's Play a Record. In recent years the quality of records for children has greatly improved. Sentimental, drooling "kiddy stuff" is still on the market, but there is also a wide range of excellent material to choose from. Many top actors and singers have helped to produce these newer records and adults can listen to them with pleasure. They are attuned to the interests and enthusiasms of various age levels. Mainly LPs, they are a good investment, particularly for the elementary school room, or for a home where there are several children. Made of almost unbreakable plastic, today's records are durable enough to last for years. When friends or relatives ask for suggestions before purchasing a family gift, why not suggest records? Here are a few good ones noted in the late catalogues:

Caedmon. "Mother Goose," with Cyril Ritchard, Celeste Holm, and Boris Karloff, reading the stories; "A Child's Garden of Verses," read by Judith Anderson; "Nonsense Verse of Carroll and Lear," read by Beatrice Lillie and others; "Rootabaga Stories," by Carl Sandburg, read by the author; "Gulliver's Travels," with Michael Redgrave reading complete episodes; Oscar Wilde's "Fairy Tales," read by Basil Rathbone; "Grimm's Fairy Tales," read by Joseph Schildkraut; "Just So Stories" and "The Jungle Book," read by Boris Karloff; "Mark Twain's Stories," read by Brandon de Wilde and others; "Alice in Wonderland" and "Through the Looking Glass" are presented with a full cast of actors. Caedmon recordings are without musical backgrounds or interludes—just the plain, untampered-with words.

Folkways. "Sleeptime Songs and Stories" are presented by the ballad singer, Pete Seeger. The stories are original. This interesting record is accompanied by a pamphlet giving the text.

Mercury. This company offers six classics on 45 records. The titles include "The Happy Prince," "Hansel and Gretel," "Snow White," and "Pinocchio."

Victor Bluebird. Among the new long-playing records issued by this company are a fresh version of "Peter Pan," with "Alice in Wonderland" on the other side; "Black Beauty and other Great Stories" —dramatized versions with music; "The Little Engine that Could"; "Winnie the Pooh" stories, adapted from A. A. Milne; "Fun in Shariland," based on a popular TV program; also "Tales from the Great Book" (Bible stories); "World's Greatest Children's Songs"; "Humpty-Dumpty's Album for Little Children." Victor also has "Major Classics for Minors," an introduction to some of the great clas[illegible] compositions, and "Adventures in Sou[illegible] and Space,"—science fiction, with musical effects.

Judson. "Old Testament Bible Stories"; "Gobbledegook Songs," with Stanley Holloway, accompanied by the Gobbledegook Symphony.

Golden. "A Child's Introduction to Jazz" has the origins of jazz on one side —African drumming, work songs, and band music; on the other, various forms of jazz—Dixieland, hot, cool, etc.; Rodgers and Hammerstein's "Saturday Matinee for Children"; Hoagy Carmichael's "Havin' a Party"; "Golden Treasury of Popular Songs"; "Songs America Sings" (mainly folk songs).

Musical Sound Books. "Favorite Fairy and Folk Tales" includes four stories from four countries, related without overdramatization or music.

Some records have been recreated from TV shows or motion pictures. "Hans Brinker" is a long-play derived from Hallmark's Hall of Fame; it is told completely in songs—a juvenile musical; "Around the World in 80 Days," a 45 r.p.m. Cricket Record, was recreated from the motion picture.

REGULATORY AGENCIES

Fourth Branch. The regulatory agencies have been called the "fourth branch" of government, supplementing the executive, legislative, and judicial. Closely related to the executive department, the heads and members of the seven agencies are appointed by the President and approved by the Senate. They are:

The Interstate Commerce Commission, created in 1887 to regulate transportation facilities between the states. It controls the rates charged by trains, inter-state trucks, buses, and river barges. It sets safety standards.

The Federal Trade Commission, set up in 1915. It sees that the laws against unfair business practices are enforced and is concerned with the prevention of false advertising and misleading labeling.

The Securities and Exchange Commission, set up in 1934. Its function is to protect citizens who invest in stocks from getting gypped.

The Federal Communications Commission, also set up in 1934. It regulates interstate and foreign commerce in radio and television, grants licenses, assigns wave lengths, and oversees standards of broadcasting.

The Federal Power Commission, established in 1939. It regulates the interstate transmission of power and the rates charged for electricity and natural gas.

The Civil Aeronautics Board, dating from 1940. It oversees the passenger fares, freight rates, and safety standards of the aircraft industry.

The Civil Rights Commission, the newest of the agencies, was established by President Eisenhower in 1957, with its life limited to two years. Its business is to check on the enforcement of the Supreme Court's ruling on school desegregation and other matters relating to civil rights.

With the exception of the last-named, all of the agencies have been, at one time or another, under fire. Members have been accused of making decisions in favor of special interests and in general of misusing their power. Often the members of

JOHN HANNAH, chairman of the Civil Rights Commission, in September embarked on an investigation of violations of Negro voting rights in Alabama, Florida, and Mississippi. Hannah is president of Michigan State University.

REGULATORY AGENCIES

the commissions are representatives of the various industrial corporations which they are supposed to regulate. Questions of "conflict of interest" naturally arise.

Regulating Regulators. In 1957, the House of Representatives set up the Special House Subcommittee on Legislative Oversight. This clumsy title suggests that the committee is taking care of things forgotten or overlooked. It is, however, concerned with the regulatory agencies, listed above, which Congress oversees. In particular, it investigates complaints having to do with abuses and corruption.

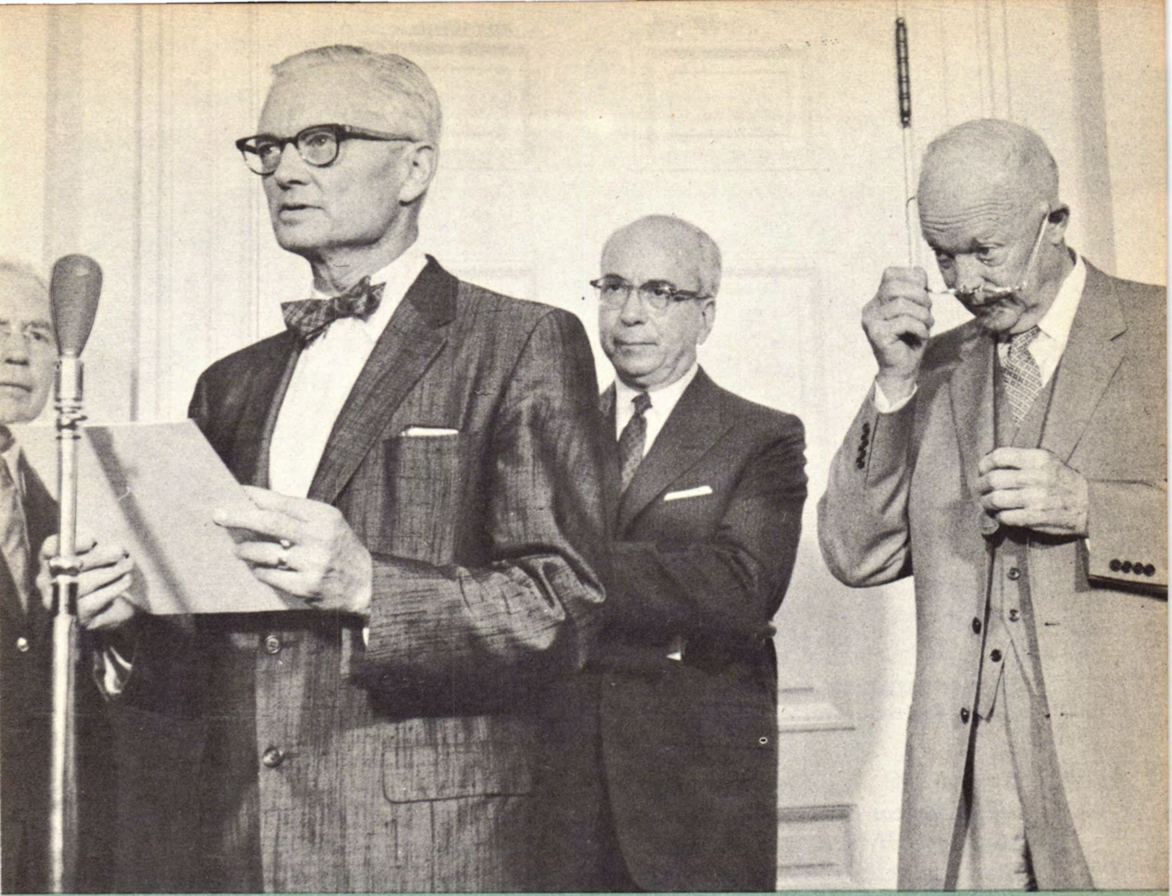
For its 1958 series of hearings, the Subcommittee on Legislative Oversight chose as its chief counsel Bernard Schwartz, professor of law at New York University and a recognized authority on constitutional law. Mr. Schwartz assembled a mass of charges of misconduct against the members of the FCC. The members, mainly appointees of the party in power, receive $20,000 a year and generous expense accounts. One charge involved the granting of radio and television licenses in Miami contrary to the advice of the commission's own investigator. One of the members who voted favorably on these licenses was Richard A. Mack, a Florida Democrat appointed by President Eisenhower. Schwartz produced evidence showing that Mack had received favors, loans, and checks from an attorney working for the National Airlines, which controlled the company receiving the license. Mack, protesting innocence, resigned. John C. Doerfer, chairman of the Commission, was also under fire for having accepted honorariums and travel expenses from broadcasting industry sources.

Schwartz Dismissed. Prof. Schwartz appeared to have a mass of additional material of a damaging nature. He was told to put aside his findings and make a more general survey of all the agencies. It seemed to him that the Subcommittee did not want the facts revealed. Certain findings were "leaked" to a *New York Times* reporter and made public. At this point, the Subcommittee by a vote of 4 to 7 dismissed Schwartz. Rep. Morgan Moulder (D. Mo.), who had consistently supported Schwartz, then resigned. Schwartz handed to newsmen a five-point indictment, accusing the majority of the Committee "in order to further their own partisan interests, of joining an unholy alliance between big business and the White House to obtain a whitewash."

Subsequently Schwartz himself was called before the Committee to testify, and substantiated charges against certain officials, including the President's top assistant, Sherman Adams. Schwartz urged that Congress prescribe a code of ethics for members of regulatory agencies and was critical of the fact that these men often were chosen from the very industries they were supposed to regulate.

Adams-Goldfine Affair. With the introduction of the name of Sherman Adams, the investigation became a news story that held the top headlines for many weeks. Adams, a powerful figure in Republican policy-making and patronage-dispensing, had a reputation for rigorous honesty and uprightness. Yet, when Adams was called as a witness, he admitted he had received generous gifts from one Bernard Goldfine, a Boston industrialist who was in trouble with two regulatory agencies, the FTC and the SEC. Goldfine had paid Boston hotel bills for Adams amounting to more than $3,000. Adams declared that the telephone calls he had made to the agencies were to get information, not to exert influence in Goldfine's behalf. He insisted that the relationship with Goldfine was one of friendship.

Goldfine's own testimony made it clear that Adams was but one of many public figures and officeholders who had received important favors from him. The

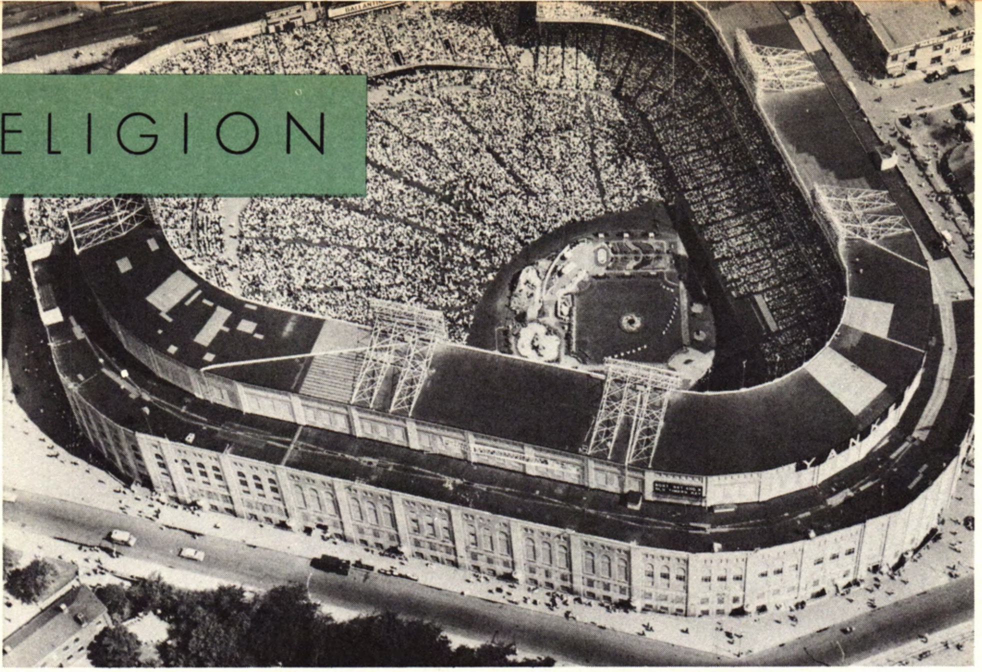


SHERMAN ADAMS, then presidential aide, reads a citation honoring Lewis L. Strauss. Severely criticized for using his influence unwisely, Adams resigned in September.

Adams gifts were, however, listed in his tax returns as a business expense—which put a different light on the affair. In the main, Goldfine remembered very little as to his financial operations. To add to the atmosphere of intrigue, certain papers were said to have been stolen from his bookkeeper's room and his own hotel suite was "bugged" by an aide of the subcommittee—an operative who was subsequently fired. There was clamor that Adams resign at once. The President stood by his aide, saying that he had been "imprudent," but that, "I need him." Three months later, when the outcry from both Republicans and Democrats had grown too strong to be ignored, Adams resigned. He was allowed national broadcasting time to tell his story, and Democratic National Chairman Paul M. Butler was given equal time to refute Adams' claim that his resignation had been contrived in order to besmirch the administration. Butler said Adams' resignation was forced by his own party after it was demonstrated by the Republican defeat in Maine that the Adams-Goldfine affair was going to injure the party in the coming election. Goldfine's records were examined, and he was later indicted and sentenced.

Whether the results of the investigations were worth the time consumed is debatable. At all events, the members of the various regulatory agencies are aware that their actions may come up for close scrutiny at any time. In the future, the public may take more interest in the character of the men who are appointed to these important positions.

RELIGION



YANKEE STADIUM was filled to the top when some 53,000 Jehovah's Witnesses gathered there for their world assembly. All told, an estimated quarter of a million persons attended the 8-day gathering.

Ecumenical Movement. Within Protestantism, divided into so many sects, there has been a slowly-growing movement toward unity. This trend was made manifest in concrete, physical terms in October, when the cornerstone of a handsome National Council Center building was laid in New York City. Headquarters of the National Council of Churches of Christ in the U.S.A., the new structure on Riverside Drive will be adjacent to the Riverside Church (Baptist) and the Union Theological Seminary. The site was provided by the late John D. Rockefeller, Jr., who also contributed to the cost of construction. The building will be a block long, 19 stories high, and will cost about $19,800,000.

The National Council represents a broadening of the Federal Council of Churches of Christ in America. The latter organization, formed in 1908 of 30 Protestant denominations, was the greatest experiment in co-operation among the churches up to that time. In 1950 a further consolidation took place when the Federal Council joined with seven other bodies to found the National Council of Churches of Christ in the U.S.A. This body now represents 37 Protestant and Eastern Orthodox denominations.

In 1948, the World Council of Churches, comprising Protestant, Anglican, and Eastern Orthodox groups was founded. At their 1958 conference, held in Denmark, the main subject of discussion was how organized Christianity could help prevent war in the atomic age. A preliminary report, prepared by a committee of churchmen over a three-year period, was worded in positive, pacifist terms. It urged all Christians to oppose national and international policies which might lead to all-out conflict. If such a war should break out, Christians should seek to end it, if necessary on the enemy's terms, and resort to non-violent resistance. This proved too controversial for general acceptance, and a much milder statement was finally adopted. It advocated progressive disarmament, and inspection and control of nuclear devices.

A Clear Call. In November there was a further demonstration of deep concern

RELIGION

in world problems on the part of the Protestant clergy. The Fifth World Order Conference, called by the National Council, met in Cleveland. By far the most politically outspoken of any recent gathering of churchmen, it brought together 600 delegates, officially representing 33 denominations.

Although Secretary of State John Foster Dulles addressed the opening session, in its later sessions several speakers were highly critical of U. S. foreign policies and the conference as a whole registered disapproval. The keynote address by Methodist Bishop G. Bromley Oxnam called for a new foreign policy, based on honesty and open doors. Thomas K. Finletter, former Secretary of the Air Force, charged that U. S. policies were lagging behind world developments. He denounced power politics, citing U. S. behavior in Formosa as a prime example of military colonialism. The delegates overwhelmingly advocated an about-face in our relations with Communist China, and agreed to work for the admission of China to the United Nations.

A major result of the conference was a 10-point survey of the world today with suggestions as to how Christians may make their influence effective. The concluding section reads as follows:

"The church is called to mediate the love and judgment of God to this threatened world. Our response to His love, which is expressed in our love for our neighbors, should sensitize us to the needs, the aspirations, the fears and the sensibilities of all peoples affected by the policy of our nation. Many of the moral failures of policy are failures of empathy; they come from an inability to see the world as it appears to nations whose traditions and conditions of life are different from our own.

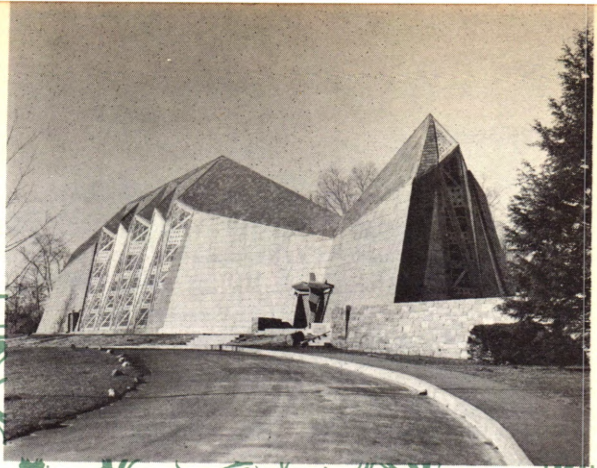
"We must be far more open than we have been to the needs and aspirations and fears of other nations. We must continuously, ruthlessly, re-examine the hardness of mind and heart that comes from our too little noted national self-justification. We must face new realities and problems with the freshness of mind that is the fruit of repentance."

A Lively Weekly. *The Christian Century* has completed its first half century. Now under the editorship of Harold E. Fey, this Protestant periodical has built up a well-deserved reputation for its broad coverage of world events and their interpretation. The *Century's* editorial section is followed by several leading articles, news of the Christian world, letters, and book and drama criticism. Among the recent "causes" it has championed: a better deal for the American Indian and the ending of nuclear bomb testing.

Integration. The stand of the churches on integration has been more positive than in previous years. The Methodist bishops reaffirmed their support of the Supreme Court ruling declaring it was in keeping with the Social Creed of the Church. "The decisions of the Supreme Court of the United States relative to segregation made necessary far-reaching and often difficult community adjustments in good faith, with brotherliness and patience. . . . To obey the law only when it suits us is to invite others to do likewise and that ultimately leads to anarchy." The Methodist bishops also came out against the continuation of the universal draft law; they deplored attempts on the part of government officials to conceal basic facts in the space-atomic field; and reaffirmed the Methodist position of total abstinence from the use of alcoholic beverages.

The Roman Catholic bishops of the United States called for "decisive but prudent" action to eradicate racial segregation. The prelates appealed to Americans of all religious faiths to "seize the mantle of leadership from the agitator and the racist."

THE FISH is an early Christian symbol and architects Harrison and Abramovitz have made use of it in this fish-shaped church at Stamford, Conn.



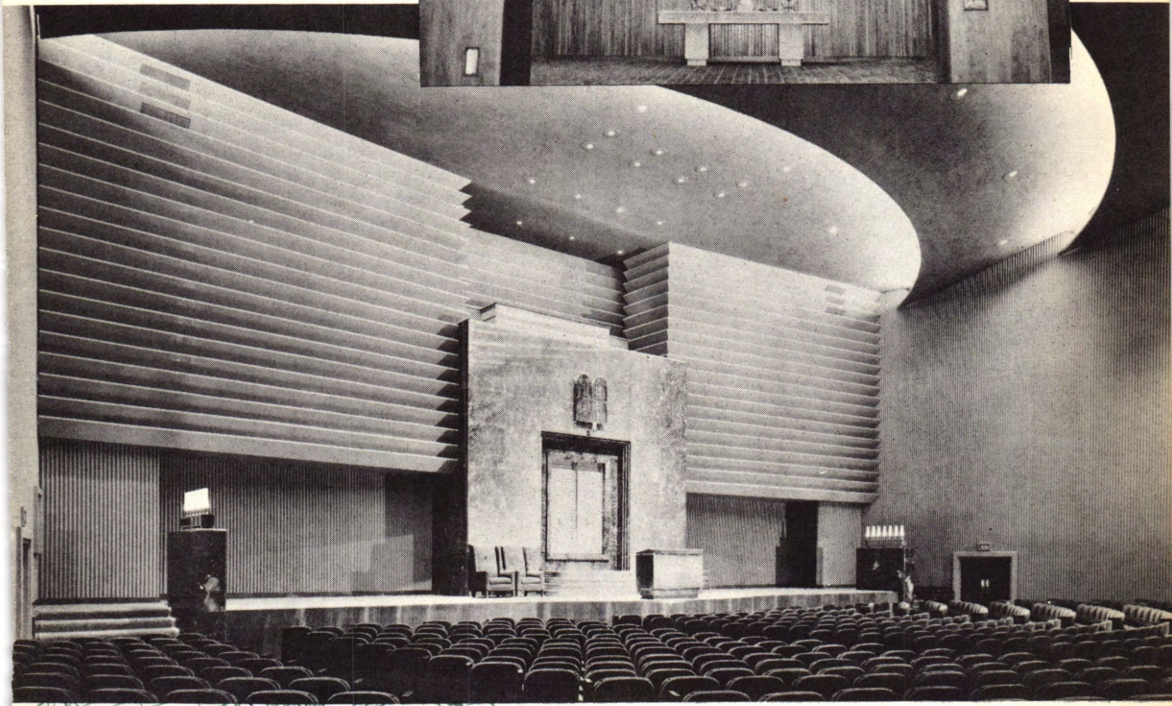
Religious Art

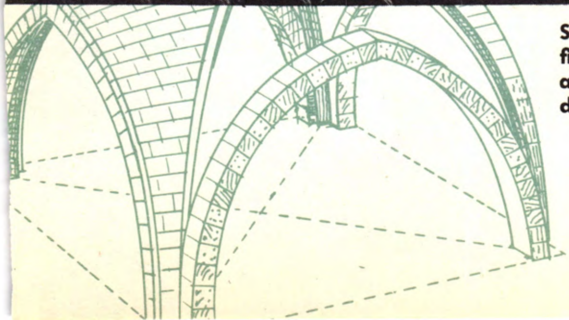
THE INTERIOR of the Stamford church, above, showing the nave roofed with stained glass.

JEAN COCTEAU, poet, novelist, film-maker and musician, recently turned to mural painting. His decorations for this small fishermen's church at Villefranche, southern France, depict events in the life of Saint Peter.

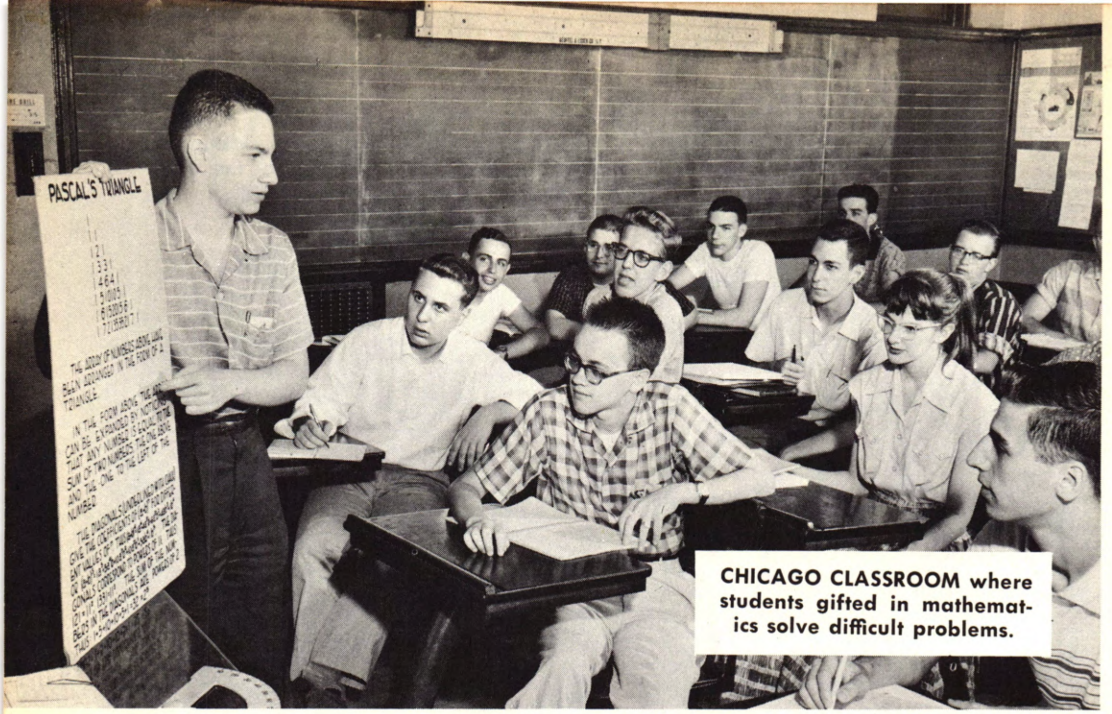
SOMETHING NEW in external church decoration is this mosaic and bas-relief, designed and executed by Louisa Jenkins for the College of Holy Names, Oakland, Cal., as a memorial to Saint Sophia.

METAL MURAL SCREEN for the Niles, Ohio, Presbyterian Church was created by the sculptor, Clark Fitz-Gerald.





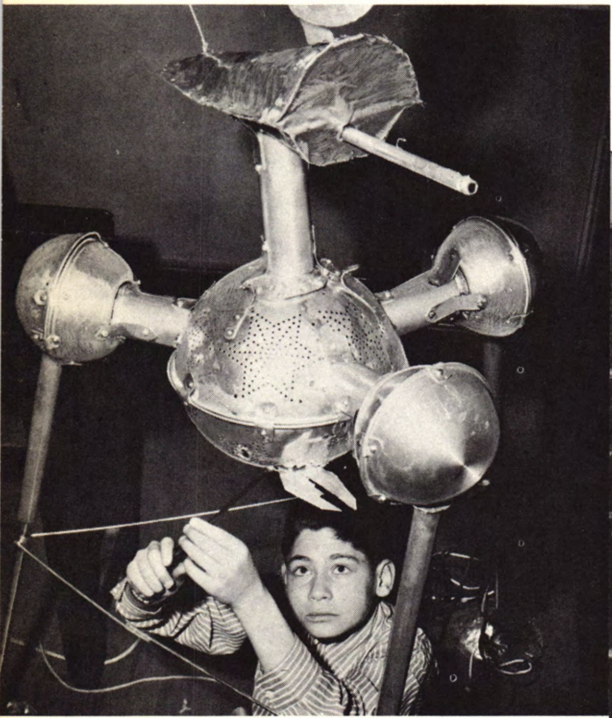
SINAI TEMPLE on Chicago's south side is a fine example of the trend toward simplicity and strength. Distinctive features are the indirect lighting, fluted plaster, and the marble frame for the ark with its bronze doors.



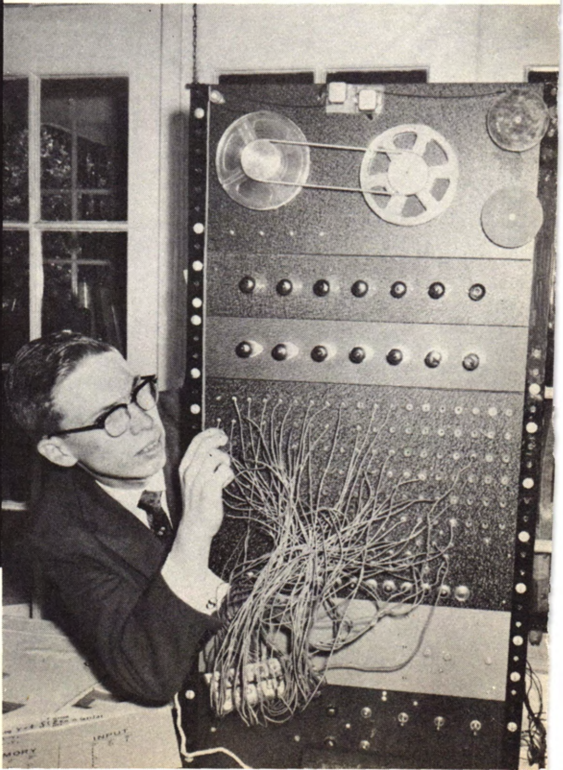
CHICAGO CLASSROOM where students gifted in mathematics solve difficult problems.

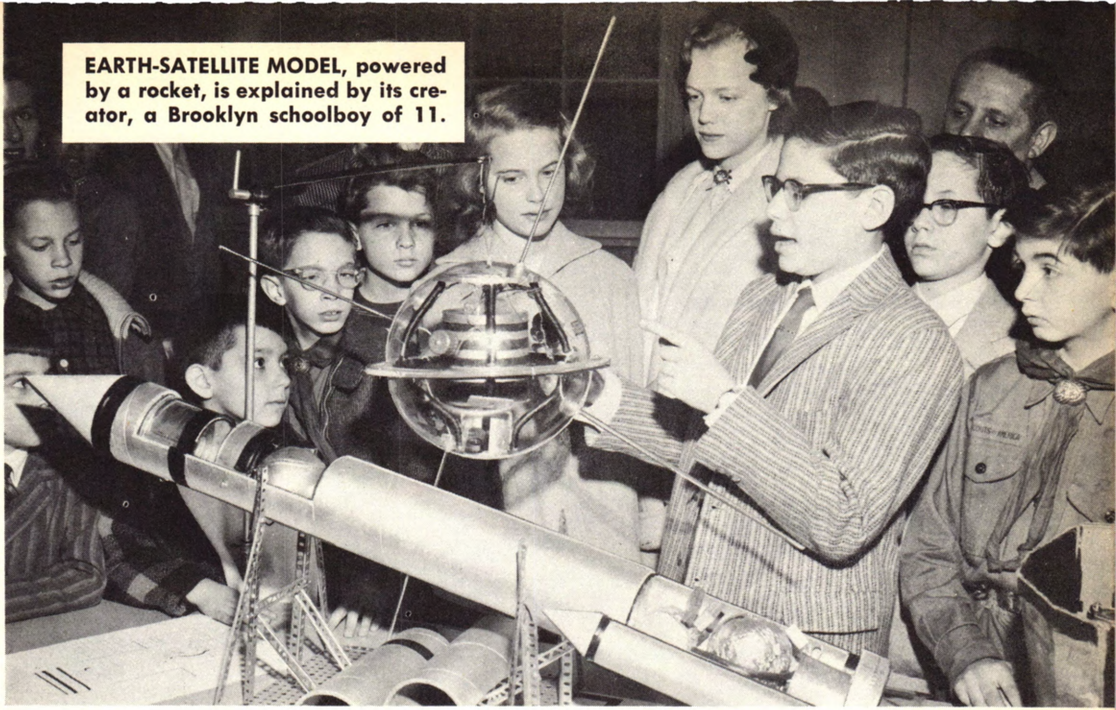
SCHOOLBOY

LOOKING LIKE a telephone switchboard this gadget is an electrically-operated mineralogical computer, which won its 18-year-old inventor and maker four awards in the 1958 Industrial Arts competition.



HOME-MADE ROBOT, able to walk and move its hands, was created by a Brooklyn schoolboy from old cans, strainers, and anything else that came handy.





EARTH-SATELLITE MODEL, powered by a rocket, is explained by its creator, a Brooklyn schoolboy of 11.

SCIENTISTS

SCHOOL SCIENCE FAIR, New York, displays projects undertaken by students, who explain them. Here a high school senior demonstrates the working of his 2,000,000 volt atom-smasher, made from odds and ends at a cost of less than $100.

SCIENCE TEACHING has improved at every level, and as a result enthusiasm for science studies has increased. Peter Stuyvesant High School, New York City, requires four years of physics and chemistry for all students.

THE WORST DISASTER in Chicago school history occurred on December 1, when Our Lady of the Angels grade school in the northwest section of the city was demolished by fire, bringing death to 90 children and three nuns. The fire, of unknown origin, started at the base of a rear stairwell and quickly engulfed the second floor schoolrooms. Although the building, a former church, had been recently approved by fire inspectors, the evidence showed that more rigid rules were needed. The catastrophe stimulated many schools throughout the country to re-examine their fire prevention and escape facilities.

Science News Notes

Eye on the Sky. In the near future the United States' first national astronomical observatory will be built in Arizona, with a grant from the National Science Foundation. It will be managed by an association of seven universities—Wisconsin, Chicago, Harvard, Indiana, Michigan, Ohio State, and California. These particular universities joined together as a management group because they have had experience in operating large observatories and also strong research programs and graduate instruction in astronomy. As the project develops other universities and individuals are expected to join this Association of Universities for Research in Astronomy, or AURA.

When completed the new observatory will include a 36-inch telescope and an 80-inch telescope. The appropriation of the National Science Foundation includes $3,100,000 for construction. Dr. Aden B. Meinel has been appointed director of the new observatory.

Harnessing Cold. One of the newer sciences is cryogenics, which comes from a Greek word meaning "creation of icy cold." The kind of cold that laboratory scientists are now studying is something beyond human sensation. Mercury freezes at 38 degrees below zero while the coldest temperature ever recorded on earth was 124 degrees below zero in the Antarctic. That is "warm" compared with the temperatures of cryogenic research. Temperatures in outer space drop to nearly absolute zero. Before a space ship can venture to the far side of the moon, scientists must know how the materials in that ship will react to extreme cold.

A cryostat is the helium liquifier used to produce the refrigerant for cold studies. At these low temperatures everything except helium solidifies. Oxygen and nitrogen resemble white sand in appearance. Atoms are frozen in materials, allowing detailed study of their behavior. Lead coils become as springy as coiled steel wire. Low carbon steel is five times stronger than at room temperatures. At liquid helium temperatures, the conductivity of metals is determined almost entirely by the impurities that are present, and metallurgists are being asked to produce metals of greater purity. Certain metals at low temperatures become super-conductors and, when once started, an electrical current passes through them indefinitely.

Before World War II cryogenic research was being carried on mainly in Europe. Today it is being conducted in more than a hundred university and industrial laboratories in the United States.

Greaseless Bearings. The first greaseless automobiles will be on the roads in 1960, according to the American Metal Products Company of Detroit. Their Fiberglide non-lubricated fabric bearings will mean complete elimination of greased fittings. These bearings have been used on jet aircraft. They are said to have a life up to ten times that of lubricated metal and road tests show they are not affected by dust and mud. Mass production will bring the cost down to that of conventional bearings.

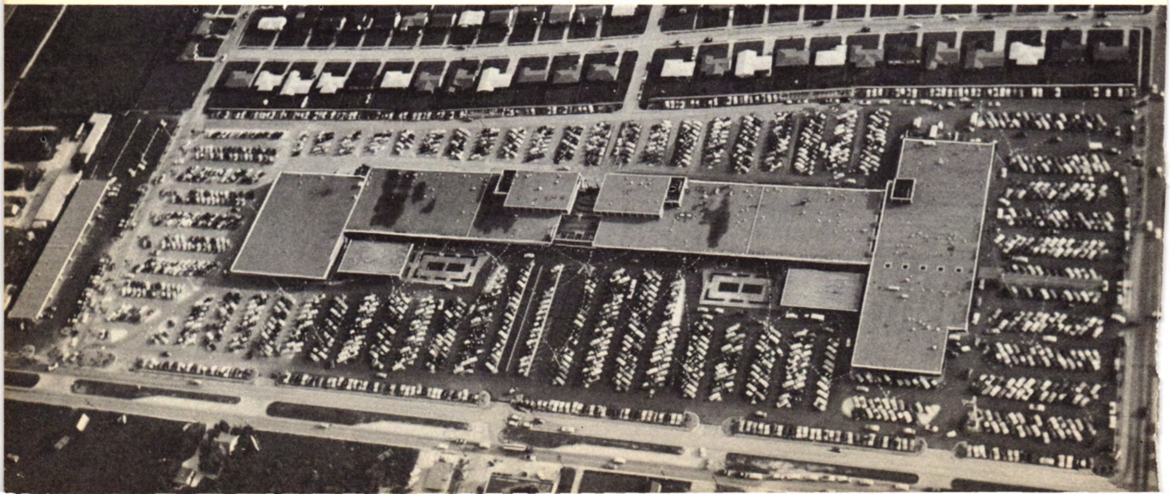
A Biologist Speaks. Dr. René J. Du Bos of the Rockefeller Institute for Medical Research has voiced the warning that medical advances, by interfering with the process of natural selection, may be promoting the rise of the unfit. Through the application of new medical knowledge in treating disease we are allowing the survival of large numbers of biological misfits and the accumulation of defective genes in the human stock. All kinds of hereditary defects that used to be eliminated by evolutionary selection are now being reproduced. Dr. Du Bos does not suggest a retreat from medical ethics and human ideals—but that we consider the subject.

WHILE THIS CART was not designed as a baby carriage, mothers of young children long ago discovered how useful supermarket carts are for this purpose. Many modern shopping centers provide carts with a seat for baby, as well as regulation strollers for the convenience of mothers and their offspring. Some suburban shopping centers have nurseries equipped with nurses and licensed teachers to care for 125 children at a time.

SHOPPING

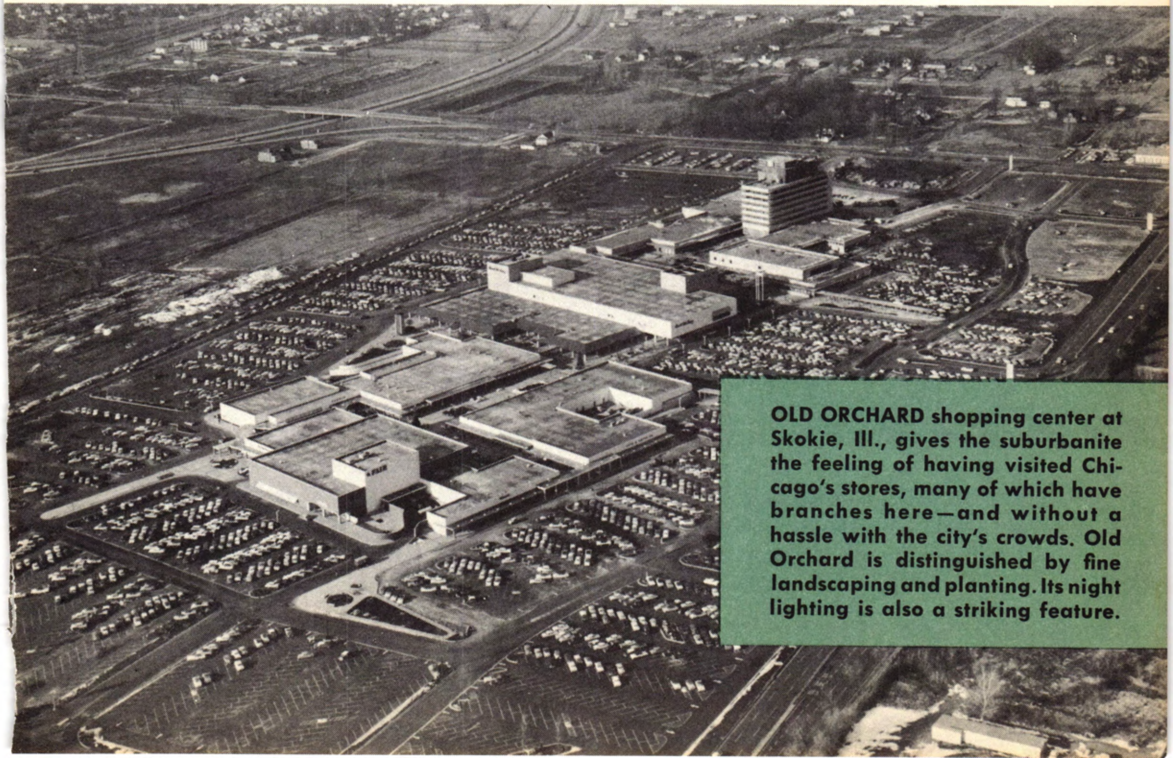
SHOPPING CENTERS have sprung up across the country in response to a real need. In 1950 there were fewer than 100. Now there are more than 2,400, with many more planned. These well-designed centers have been built in the fast-growing suburbs, and they have also begun to replace the old haphazard business sections of the towns, and even of large cities where extensive redevelopment plans are under way.

A SMALL SHOPPING CENTER, Houston, Tex. Extended roof overhang enables the shopper to go from shop to shop without being exposed to sun or rain.



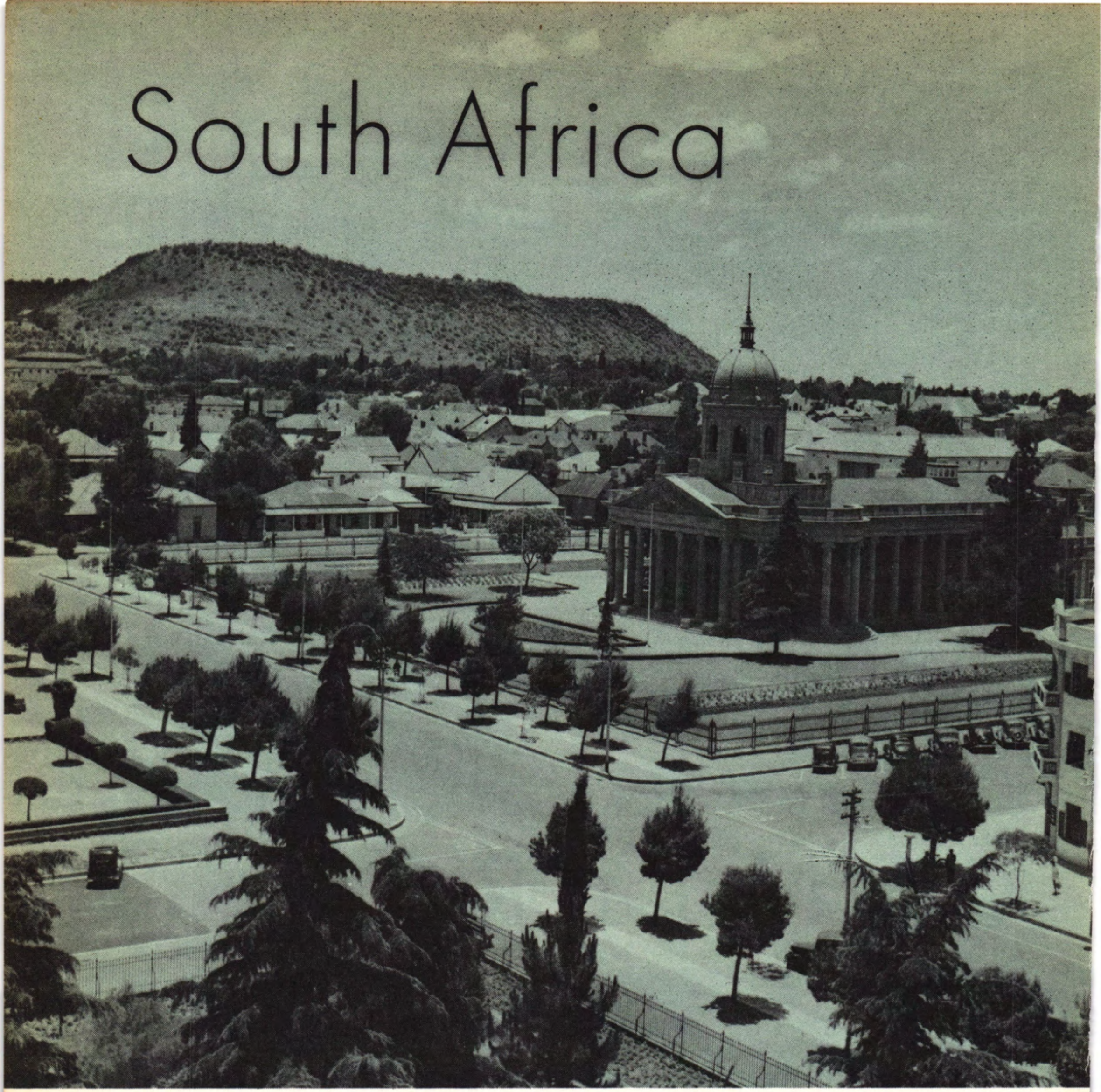
THE MALL, or inner court, of the Eastgate, Indianapolis, center, invites the shopper to window-shop or rest comfortably.

CENTERS



OLD ORCHARD shopping center at Skokie, Ill., gives the suburbanite the feeling of having visited Chicago's stores, many of which have branches here—and without a hassle with the city's crowds. Old Orchard is distinguished by fine landscaping and planting. Its night lighting is also a striking feature.

South Africa



THE RAADSAAL, or council chamber, at Bloemfontein, Orange Free State. It is now almost 60 years since the Boer War brought this part of Africa under British control.

Racial Tension Grows. The new prime minister of the Union of South Africa, Dr. Hendrick Verwoerd, is even more of a segregationist than his predecessor, the late Johannes G. Strijdom. Dr. Verwoerd, born in the Netherlands, is a strong believer in white supremacy. His attitude toward the dark races inclines to the paternalistic. But it is his conviction that they are biologically inferior and must continue to be hewers of wood and drawers of water, the diggers of South Africa's diamonds and gold, a voiceless people who must forever live apart. He does not want to deny them a share in the welfare program of the state—but it is a very small share. In the matter of Old Age Pensions, for instance, the pension for a white person is more than six times as much as it is for a black.

"Apartness," which is the literal translation of South Africa's policy of Apart-

heid, applies not only to the blacks and whites but also to the two sections of the white population—British and Boer. They are "apart" in viewpoint. The British, in general, favor a more liberal policy toward the native Africans, now commonly referred to as the Bantus, the predominant black race in South Africa. As for the Apartheid policy for Africans and Europeans, there is nothing new about it, but its enforcement has taken a drastic turn in this decade, due to a shifting of the native population. With the development of a school system for them, however inadequate, with more industries opening up in and near the population centers, the natives have been moving to the big cities in great numbers. As a result, abominable slums have sprung up in Johannesburg, Cape Town, Pretoria, Durban, and other towns. "If the stream of Africans continues into the towns," Dr. Verwoerd has declared, "we will be drowned in a black sea."

DR. HENDRIK F. VERWOERD, strong proponent of the Apartheid policy, is South Africa's new prime minister.

Indian Problem. Another element in the racial mixture is the presence in South Africa of a considerable number of Asians, mostly Indians. A breakdown shows that the population of fourteen million con-

NATIVE BAZAAR, Johannesburg, where skillful South African craftsmen sell the articles they have fashioned.

SOUTH AFRICAN HOMESTEAD. While not altogether typical, this photograph illustrates the substantial character of the Dutch farm home.

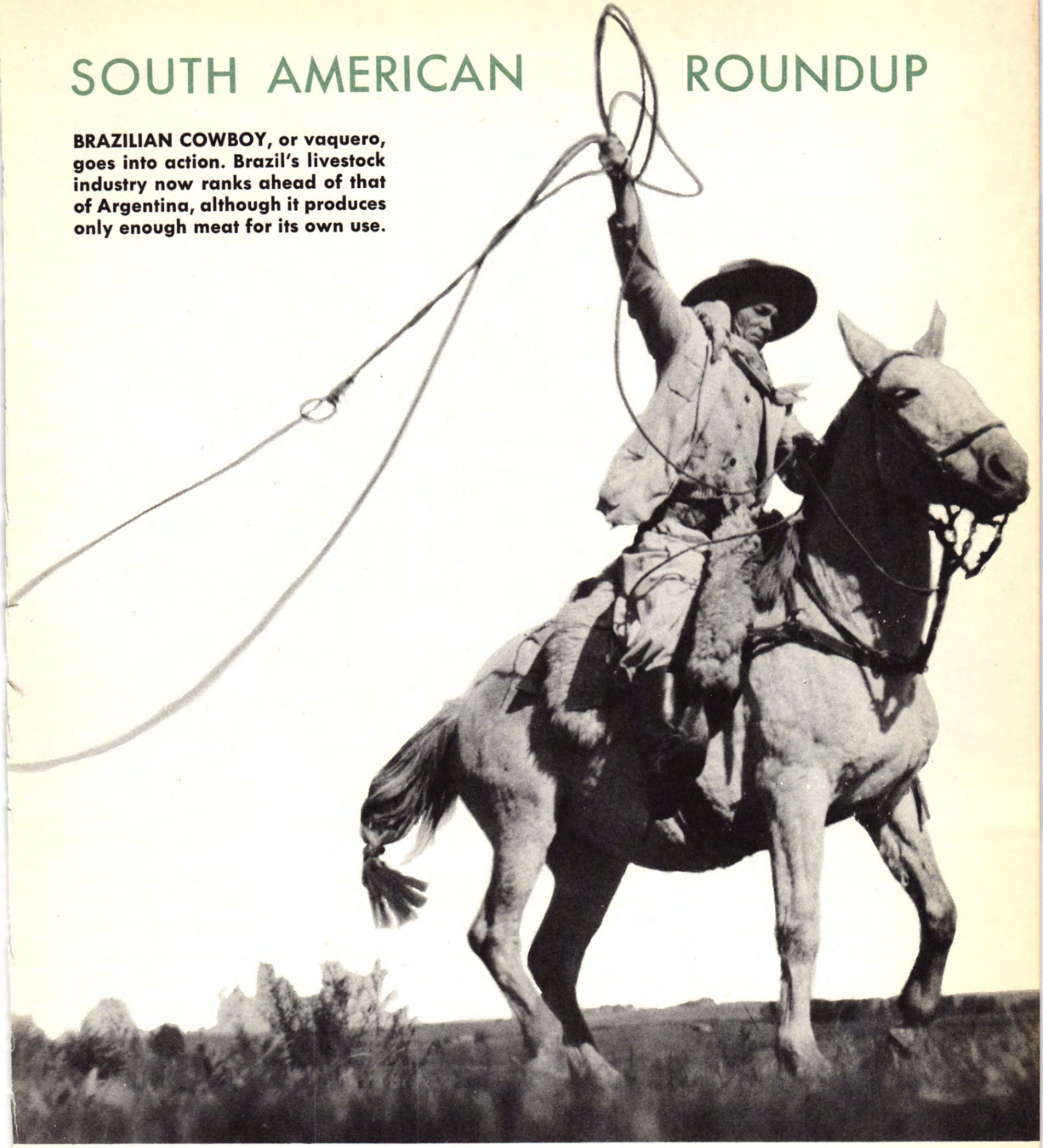
sists of about 20 per cent Europeans, 67 per cent Bantus, 9 per cent Colored (mixed), and 3 per cent Asiatic.

To insure white supremacy, the Union of South Africa in 1950 passed the Group Areas Act. Under this law, Africans, Indians, and Colored were gradually to be moved into segregated districts. In most towns and cities, the segregation of black and white was already achieved, but a part of this plan was to get at least some of the Bantus out of the cities and "back where they came from."

For the Indians of South Africa, the carrying out of the law seemed to point to virtual extinction. In the larger towns the Indians have been established for about 75 years. It will be remembered that Mahatma Gandhi, at the outset of his career, was their spokesman. As immigrants, the Indians were barred from most trades and professions, and from the ownership of land. They became businessmen, traders, storekeepers, clerks, and lawyers. In the administrative capital of South Africa, Pretoria, much of the city's business is in their hands. Now they are being evicted from the main streets where their shops and offices were located and assigned to a barren resettlement area seven miles from the city. Pretoria's Bantus have also been assigned to an area far from town, an arrangement that works great hardships on them.

Realizing how unpopular his policies are in much of the world—and particularly in the countries of the British Commonwealth—Dr. Verwoerd would like to withdraw from that body to form a Federated Republic. (See UNITED NATIONS for further discussion of the South African problem.)

SOUTH AMERICAN ROUNDUP



BRAZILIAN COWBOY, or vaquero, goes into action. Brazil's livestock industry now ranks ahead of that of Argentina, although it produces only enough meat for its own use.

Looking to the South. With its attention focused on troubling events in other parts of the world, the United States had turned away from its neighbors in the Western Hemisphere. Many changes have been taking place in the social and economic life of countries of South America. In the main they have been evolving rapidly toward more responsible government. Since 1955, three dictatorships have been overthrown—in Argentina, Peru, and Colombia. Many successful efforts are being made to industrialize, to initiate large-scale land reforms, to improve agricultural productivity. In agriculture, as in mining operations and health edu-

ATTACKED BY HOODLUMS, Vice President Nixon's car barely escaped from a mob in Caracas, Venezuela.

cation, the United Nations technical missions and projects have been helpful. The immigration since World War II of refugees and other Europeans—many of them with high technical skills—has stimulated development. The growth of a native middle class and the bettering of education, the rise of women as a political force, the flourishing of the arts, of music, the dance, and painting—all these have been other aspects of progress.

Nixon's Tour. Partly to make amends for apparent neglect of South America and its sensitive and proud peoples, in April President Eisenhower sent Vice-President Nixon to visit eight countries. One of Nixon's objectives was to represent the President at the inauguration of Argentina's new president. The well-meant junket, perhaps coming too late, turned out to be damaging to U. S. prestige. In four of the countries visited violent and insulting attacks on the American party by university students and street mobs revealed deep distrust and dislike—not for Nixon personally but for the policies of his government. The outbreaks, in some cases fomented by Communists, were regretted by a majority of South Americans, but they undoubtedly expressed a very prevalent attitude.

Policy Shifts? The State Department at once swung its sights southward. Milton Eisenhower was sent to the countries of Central America on what was described as a "study mission." Conferences with the leading men of these small countries were said to have been productive of good

will and some concrete economic planning. In August Secretary of State John Foster Dulles, in the midst of plans for U.N. General Assembly meetings on the Middle East, flew to Brazil for talks with President Kubitschek. Rumors of policy shifts circulated. At least South America was not going to be taken for granted.

Behind the Hostility. Resentment against the United States has increased with high tariffs, which have had the effect of restricting the import of South American products, particularly wool and metals, of which Uruguay, Chile, and Bolivia are prime producers. U. S. need for these materials had decreased in recent years, which further lowered sales.

South Americans allege that the United States has supported certain dictators and used its influence to keep them in power. In general, they say that this country tried to preserve existing governments when the people wanted change. The accusation contains some truth. Some autocratic rulers and their associates have maintained their hold with the aid of funds derived from the sale or lease of valuable natural resources, oil and minerals, to North American business interests. The Venezuelan dictator, Perez Jiminez, is a recent example. He was

ELEMENTARY EDUCATION for all is making a start in Bolivia, with help from United Nations agencies.

BOOM TOWN in the snow-covered Andes. Sewell, Chile, site of the largest underground copper mine in the world, has a population of 12,000—and a high standard of living.

BORORO INDIANS, of the central Matto Grosso region of Brazil. Although only a few clans of this once powerful and warlike tribe remain, the Bororos keep up their ancient ways. This old warrior imitates the sounds of birds with his flute.

popular with North American oil-producing companies with whom he had set up a 50-50 royalty arrangement. The profits to both sides have been fabulous, but little of Venezuela's share trickled down to the common people. The United States awarded Jiminez its Legion of Merit. When he was finally forced to flee the country after the uprising of January, 1958, he was reported to have salvaged an enormous fortune. The United States gave him asylum. This was resented by the more democratic government which succeeded him. (Cuba, treated elsewhere in this volume, offers another example of U. S. support of a dictator.)

The charge that North American business has exploited South American workers, often with the connivance of local officials, must be carefully weighed. Some companies have done so; others have a genuine concern for the welfare of their employees, offering much higher wages than the local rates, as well as health services and good housing.

One troublesome fact that cannot be blamed on the United States is the one-product, lopsided economy of many South American countries. If a crop fails, or its price drops due to decreased demand or heavy production elsewhere in the world, these countries find themselves sliding toward bankruptcy. More diversified agriculture, more industry, more trading with neighboring countries, all these helpful measures are being applied. A real common market, such as is beginning to operate among six countries of Western Europe, would aid South America, as well as the tiny republics of Central America. Lack of communicating roads, railways and other transport is today an obstacle to trade between countries.

Argentina. The provisional government which was in power from 1954 to 1957 had the large task of undoing the work of Juan Peron, who during his ten-year dictatorship had transformed the country into a totalitarian state. Wholesale purges of personnel, from the supreme court down, were made. The school system, which had been turned into a propaganda machine, had to be purged of Peronista teachers and reorganized. In 1957, a constituent assembly was elected, along with a new president, Arturo Frondizi, who had spearheaded the opposition to Peron. Yet Frondizi has not rejected the support of some Peronistas.

During this period of reconstruction, the country's economy has not prospered. The United States has extended some $100 millions in aid. More foreign capital is required to start oil and power developments. Living costs are rising. The Argentines, perhaps the most Europeanized people of South America, are intelligent and able. While their per capita income is high for South America ($457), it is insufficient. The Communist move-

RIO DE JANEIRO, above, with its picturesque and leisurely life, is losing its position as first city of Brazil, with the growth of the brand-new inland capital, Brasilia.

ment is fairly strong here.

Bolivia. Resources for an abundant life are available in Bolivia, but most of the people, half of whom are Indians, live at a bare subsistence level. On the mountain heights, they engage in primitive agriculture, raising potatoes, millet, and coarse grains, and such animals as the alpaca and the llama. Absentee landlords own most of the great estates, some of them comprising as many as 100 farm families. Only 10 per cent of the holdings are operated by owners. Poor soil and a harsh climate make living on the heights difficult. The alternative is work in the tin mines.

Bolivia, known as the kingdom of tin, gains its main cash income from this

BOLIVIAN INDIANS come to worship in this missionary chapel almost at the top of the high Andes.

commodity. It is mined in the Andes at an altitude of about 14,000 feet. The tin mines have been nationalized. The price of tin has dropped, and the cost of living has risen.

The eastern two thirds of the country is tropical, underpopulated lowlands. Although here the soil is better suited to agriculture, the mountain people cling to their heights and adjust poorly to the low altitude. Cattle are raised in the plains and there are great forests with resources almost untapped. Among the varieties of trees is the chinchona from whose bark quinine is derived. Oil has been discovered. Cheap transportation for marketing these varied products is lacking, although in 1958 a new railway line which makes it possible to travel from the Atlantic to the Pacific across Brazil. Bolivia, and northern Chile was opened. The United States has given the country $88 millions within the last five years. Much more capital is needed. As elsewhere in South America there is a tremendous gap between rich and poor. The per capita annual income in Bolivia is only $58. The Communists are active but not a major force.

Brazil. With the price of coffee down in 1958, Brazil suffered from its overdependence on that product. But oil has been gushing from wells in the state of Bahia, to add impetus to the economy. And President Kubitschek has been carving out a brand-new capital, Brasilia, at a site several hundred miles northwest of Rio. With many new roads being built, the opening up of the rich and unknown interior comes nearer. The United States has helped to meet Brazil's food shortage by an agreement to ship wheat over a three-year period. The Brazilian government will sell the wheat and use the proceeds in basic power developments. The President has dissolved some of the left-wing groups which were infiltrating labor unions and the armed forces, but Brazil still has a strong Communist party.

Chile. Cut off from the rest of the continent by the Andes, Chile extends for 3,000 miles down its western flank. In places the country is scarcely a hundred miles wide. This long, deeply-indented fringe of coast has a varied landscape. The north, source of copper, nitrates, iron and manganese, is mainly desert and bare mountains. The central portion is a rich and fruitful land of plains and valleys, with a backdrop of dramatic mountains. In the South, there are forests, lakes, glaciers, and deep fjords where the Araucana Indians live in aboriginal simplicity.

The people have emerged from a century-long struggle with landlords, army, and ruthless dictators. Today Chile ranks as a real democracy, with a free press and orderly elections. But the breaking up of large estates is an urgently needed reform. Chile's economy has been tied to

AUTOMOBILE ROAD and Transandean Railway parallel each other as they ascend the Chilean Andes en route from Santiago to Buenos Aires. A train may be seen climbing up the steep grade. Airplanes have to ascend to more than 18,000 feet to clear the passes.

copper. Copper and other minerals are its important export products. In 1958 the price of copper fell, and the shutting down of mines caused hardship. One of Chile's greatest resources, the melting snows from the Andes for hydroelectric power, is undeveloped. Although its living standard is in the medium range, with a per capita annual income of $296, many Chileans suffer from malnutrition. The Communist party has been legalized in Chile. Chile and Argentina have recently been bickering over the possession of certain offshore islands.

SOUTH AMERICAN ROUNDUP

Colombia. Another country with its eggs in one basket, Colombia is overdependent on coffee, which accounts for 77 per cent of its export income. Political disorders have prevented the development of extensive resources. The new regime of President Alberto Lleras Camargo, since assuming power in August, 1958, has attempted to combat inflation and put some order into the country's finances. The ousted dictator, Rohas Pinella, fled to Spain, allegedly with a fortune of many millions. The per capita annual income is $262. There are too few Communists to be a nuisance.

Ecuador. Another small tropical country, southwest of Colombia, has many of the same problems. Ecuadorean per capita income of $164 a year is low, but it is stable—as long as the world has a strong craving for bananas. Coffee, cacao, and bananas make up 85 per cent of its exports. Like Bolivia, Ecuador is split into two distinct geographical areas. The mountain section, where the capital, Quito, is situated is near the top of the Andes—yet almost astride the Equator. Below, to the west, is the steaming, lush, coastal jungle. Ecuador rates as a democracy. In 1956, it elected Camilo Ponce Enriquez as president. He has proved a capable administrator, who has pushed forward programs for building highways and schools.

Paraguay. This small inland country is the only military dictatorship left in South America. There have been few changes in the past 50 years, and a feudal system of land tenure still prevails. The productive soil is suitable for many subtropical crops. One of the chief articles of export is yerba maté, the strongly flavored Paraguay tea. A tide of unrest is rising. The cost of living has advanced rapidly. The per capita annual income is one of the lowest in South America. President Stroesser, elected in February in a race in which he was the sole candidate, has begun his second term faced with many difficulties.

Peru. A slump in the prices paid for copper, lead, and zinc has depressed the Peruvian economy. This fact and U. S. friendship for former military dictator, Gen. Manuel Odria, were reasons for the animosity expressed toward Vice-President Nixon. Exports have recently dropped nearly one third. Strikes and riots have protested low living standards. The per capita annual income is $118.

Uruguay. A tiny country lying between the giants Argentina and Brazil, Uruguay has managed to establish and maintain the purest democracy in South America. It is primarily a stockraising country, with about 60 per cent of its agricultural area devoted to grazing land for sheep and for beef and dairy cattle. The rest is in grains and peanuts. Most of its large estates have been divided up into one-family farms. Agricultural workers have the protection of a minimum wage law. Chief exports are wool, hides, and beef. U. S. trade has fallen off, but Britain and the Netherlands are good customers. Consumer industry, including textiles, has been fostered by the government, and now about 75 per cent of the manufactured goods sold in the country are produced in Uruguayan factories. The per capita annual income is relatively high, at $359. The people are European, without Indian or Negro admixture. They give the impression of being contented and prosperous. Uruguay is politically stable, although it has not been afraid of political experimentation.

Uruguay's unique government merits comment. Since the beginning of the century, Uruguay has had a constitution with a complicated system of checks to prevent the rise of a dictator. During this entire period only one "strong man" was able to seize power. Executive power is vested not in the president or prime minister but in a National Council, formed

BATHING BEACH at Montevideo. Uruguay is one of South America's more stable, prosperous, and progressive countries.

of representatives of the two leading political parties. Today the Council consists of nine members, six of the majority party, three of the runner-up. It is elected every four years, as is the Senate and Chamber of Representatives. The Council is presided over by members of the majority party who hold the office in rotation. Currently, Carlos Fischer is the president of the Council.

Uruguay has a strong bias toward state socialism or the welfare state. Utilities, insurance, railways, and some banks are state controlled. The manufacture of cement, fuel, and petroleum, are government monopolies; also the manufacture of a rum-like drink. There is complete religious liberty in Uruguay. Illiteracy has been almost completely wiped out.

Venezuela. The world's largest exporter of crude petroleum, Venezuela tops the other South American countries in wealth. The government's income from oil and mineral royalties is $1,300,000 annually. Investment capital from the United States and other countries has created the fabulous boom that has lasted nearly a dozen years. But the exploitation of Venezuela's great riches has not helped the economic condition of the average man. More than half the country's 6,200,000 people eke out a bare living, and Venezuelans resent the highly-paid skilled workers from the United States, Spain, and Italy, who have come to the country in recent years. More than 40,000 Americans live in Venezuela. Most of them are engineers and technical men.

OIL REVENUES provided the money for vast new building projects in Caracas, Venezuela, before the flight of Dictator Jiminez in January. More than 8,000 slum shacks were razed, to make way for these new apartment buildings.

During the regime of Dictator Perez Jiminez, a tremendous building program of highways, parks, palaces, business and apartment buildings made of Caracas, the capital, the wonder city of the continent. Behind the dazzling facade lurked poverty and corruption. It is said that 35 per cent of the country's vast expenditures for building found its way into the pockets of dishonest officials. After the flight of Jiminez, a military junta headed by Rear-Admiral Wolfgang Larrazabel, headed the government. The leading party is the left-wing Democratic Action party. The election in November brought Romulo Betancourt to power.

Southeast ASIA

OLD FACES AND NEW in the Far East. At top, a fierce-looking warrior from the plateau country of central Viet Nam. The government is trying to bring the primitive tribes closer to the national community. Below, a girl technician at work in the studio of Radio Viet Nam, Saigon. With the help of foreign investors, South Viet Nam is developing its industries and natural resources.

MOSCOW UNIVERSITY, on the outskirts of the city, is an example of new Russian architecture. The 35-story tower of the main building is flanked by two 18-story wings.

Czarist Russia. Imperial Russia had a deeply rooted cultural tradition and high respect for learning and intellectual achievement. At the upper levels, Russian scientific and technical work compared favorably with that of Western European countries. In Czarist times there was always a wide gulf between the few educated persons, mainly members of the upper classes, and the great mass of the uneducated. A beginning was made toward universal elementary education when, in 1908, a new law provided for three years of school for all. This was to be fully operative by 1922, but the Revolution of 1917, with its aftermath of chaos, intervened. The Revolution not only eliminated the feudal class structure but along with it the greater part of the educated professional classes.

The Communists began to set up a school system and to train teachers. The wiping out of illiteracy among adults was undertaken. This was carried on largely outside regular schoolrooms, with all who could read and write becoming teachers of others. A nation-wide system of education was established, but during the first ten years there was continuous experimentation and innovation. Then, in what might be called the second period, technological and scientific training

SOVIET EDUCATION

was stressed, within a more rigid framework. The effort to make education available to all has resulted in tripling the total number of children enrolled in the elementary and middle schools since 1927.

Post-Sputnik Era. While the Soviet educational system has developed with impressive rapidity for nearly four decades, it is only in the past two or three years that the gains, especially in the various departments of science, have received much notice from the West. The most quoted recent statistic was that the

BOARDING SCHOOLS throughout the Soviet Union began operation in 1956. They are for orphans, half-orphans, and children of parents whose work requires them to travel. Children live at the school the year round. Parents visit them during vacation periods. This is a classroom for language study in a Moscow boarding school.

SOVIET EDUCATION

Russians were turning out twice as many engineers as the United States, a country which had hitherto maintained its lead in technical fields with ease. A less known fact was that the U.S.S.R. was spending 10 per cent of the national income on education, in contrast with 3 per cent in the United States.

An examination of Soviet education became more urgent after the launching

SECONDARY SCHOOL students reciting the rules of traffic safety. At this level, extra-curricular activities include clubs of various sorts.

NURSERY SCHOOL of a weaving mill, Moscow. Pre-school education is divided into two categories—nurseries for children under three, and kindergartens for children from three to seven. There is a charge for pre-school education based on the parents' ability to pay.

of the two sputniks. Comparisons followed. This was extremely beneficial, for it brought to the fore the basic educational values in the two countries. The studies show that, in general, the rate of progress in Soviet scientific education has been remarkable. Grim concentration and determination to excel, to lift a backward country to a level with the West in science and technology, are bringing the desired results.

The way these results are being achieved points up one of the main differences between the American system and the Soviet system. In the United States, education, theoretically, is for all. Even at the higher levels, students are not excluded simply because they are of average intelligence and ungifted. The Soviet Union, on the contrary, provides advanced education only for those, who, after their elementary schooling, show scholastic promise.

The Ten-Year Course. In Russia, the widespread system of nursery schools and kindergartens set up in factories and industrial plants provides more than day care for the children of working mothers. Such centers also have a program of educational activities. There are special schools for the mentally retarded as well as for children suffering from physical handicaps.

The Russian child enters the regular school system at the age of 7 for a 10-year course of study, which is a prerequisite for advanced training and higher education.

Policy Switch. Late in 1958, a modification of the middle school program was announced by Khrushchev. The course was to be shortened by two years and the child not selected for higher education was to go to work at the age of 15. Others were to work in shops or factories for two years before entering college, with only the most brilliant students excused from this requirement. For the majority of those who go to work there will be opportunities for evening classes or

INDUSTRIAL TRAINING assumed new importance in 1958. This is the fitter's shop in a secondary school in the city of Astrakhan.

correspondence courses. Khrushchev did not state whether the change was to be temporary or permanent. Classroom and teacher shortages may have something to do with it, but Khrushchev indicated that the change of policy was more basic. The need of skilled workers is being felt in many industries. The early post-Revolutionary period of educational experimentation of twenty-five years ago did not produce the high-quality scientific personnel needed. Soviet scientists today are either very young or very old. Also, World War II killed off a generation that would otherwise be manning the industries and forging ahead in science. There would seem to be definite manpower shortages, and de-emphasizing academic learning is one way of meeting it.

In the middle school the prescribed and co-ordinated curriculum is limited to those subjects—about 20 in number—which will contribute to the national aims. In addition to mathematics, astronomy, physics, chemistry, botany, and

SOVIET EDUCATION

other scientific subjects, there is strong emphasis on Russian language and literature. The study of modern foreign langauges is also stressed. It is reported that more than half the Russian students are learning English—five to six million in the secondary schools alone. The language training is said to be thorough, its aim being to give the student fluency in reading, writing, and speaking.

There are no snap courses, and not much time is devoted to hobbies and recreation. Courses in baton-twirling and dating, found in many U. S. high school curriculums, would seem fantastic to both Russian teachers and students.

The lack of coddling is shown in the work program itself. In the middle school there are about 33 hours of class instruction in the six-day week, and 20 hours of homework. Under this regime, it is not surprising that the pre-college course of study is completed in 10 years, not 12, as in the United States.

At the conclusion of the 10-year span, students take oral and written examina-

BOTANY CLASS in a Moscow school. In the U.S.S.R. 80 per cent of the total number of teachers are women. Teachers belong to one of three trade unions, according to their teaching level—elementary, intermediate, or higher education. Their unions are expected to take an active role in drafting legislation relating to the profession, and also to carry out the directives of party and state.

COLLEGE STUDENTS who are majoring in science conduct independent research in their laboratories. Here a fourth-year student is demonstrating an apparatus which he made himself.

tions under state auspices. In the Russian view, those who do the teaching are not the ones to pass upon the success of their own efforts. Students who pass the tests are given "certificates of maturity." Today only about 125 out of a thousand children entering the first grade reach this point.

Method and discipline were borrowed from the 19th century German and Swedish educational systems. Grades, competitions, and exams dominate the atmosphere. The young people are earnest workers, well aware of the penalty of failure. It may be worth noting that persons who have escaped from the Soviet Union in recent years, while they have denounced Communism, still retain respect for their teachers and the educational system they represent.

The elite are those who emerge from competition near the top and are admitted to one of the 33 Soviet universities. Even though the vast majority have been shunted off at some time during the course, there are still about three qualified applicants to one vacancy. In recent years, 2,000,000 qualified middle school graduates were denied admittance to the universities because of lack of facilities. Some of these go to a sort of junior college called a "technicum," where they receive training for a trade or profession. Others work in industry for a year or two, then are admitted to a university.

The university students have little extra-curricular life. There are few electives. Such subjects as general history, philosophy, economics, and sociology are taught with a strong bias. The ignorance of the Soviet people today as to happenings in the rest of the world in the past forty

years is one evidence of how rigid and thorough has been the indoctrination. Tight news censorship is another reason for ignorance. Soviet university libraries are, however, well supplied with American and other foreign technical journals.

All education is at the expense of the state, and earning one's way through college is not practiced, for students receive an adequate income. Women form more than 50 per cent of those in the universities, in contrast to only about 33 per cent in the United States. Far more young women train to become professionals, especially doctors and dentists, than in the United States. This may be one reason why there are more male recruits available for the higher categories of physical and natural science, for basic and applied research. In the Soviet Union 7 students per thousand of population are in institutions of higher learning; in

ACADEMIC EDUCATION was de-emphasized in 1958. Vocational training, for the many, and scientific studies, for the highly gifted, were speeded up.

SCHOOL ARCHITECTURE in the Soviet Union does not compare favorably with American school architecture. Above, typical Moscow school.

the United States, 17.

Throughout the Soviet Union, in spite of the great variety of languages and cultures, there is uniformity of curriculum, methods, and textbooks. The Academy of Pedagogical Sciences of the U.S.S.R. exists for the collection and dissemination of information on educational ideas and developments, including what is happening in foreign countries. While Soviet pedagogy is tightly tied to Communist theory, the whole system is less rigid than in the time of Stalin.

Traveling Educators. During 1957 and 1958, many individual American teachers visited the Soviet Union. There were also a number of delegations, some of which included college presidents, professors, and administrators. They were offered opportunities to examine Soviet educational facilities, texts, and libraries. Their various reports, including that of U. S. Commissioner of Education Lawrence G. Derthick, formed the basis of much public knowledge in the United States. The educators agreed that comparisons were difficult because of the differences in standards and in statistical method.

Not all the reports have been enthusiastic. A former superintendent of schools in Chicago, Herold C. Hunt of Harvard University, objected to the basic aim of "turning out a product of service to the state." He found rigorous regimentation everywhere. "At no time," said Hunt, "did I feel any sense of freedom in the classroom." As examples he cites the fact that on the 10th day of the first year at school each child is taught to use pen and ink. Thereafter he never uses anything else. Also, left-handed children in Soviet schools are obliged to write with their right hands, a practice which American educators discontinued many years ago.

In general, visitors attested to the rapid Russian advance. The tough-minded attitude and the limitations of the curriculum formed perhaps the greatest contrast. American education is broader in scope, more concerned with human and humane values, and with freedom for the individual to follow his own bent. In the Soviet Union, education is geared to carry out the government's projects and plans. If the state planners expect to need a certain number of experts in a given field five or ten years in the future, that number of students will be channelled into the requisite years of training.

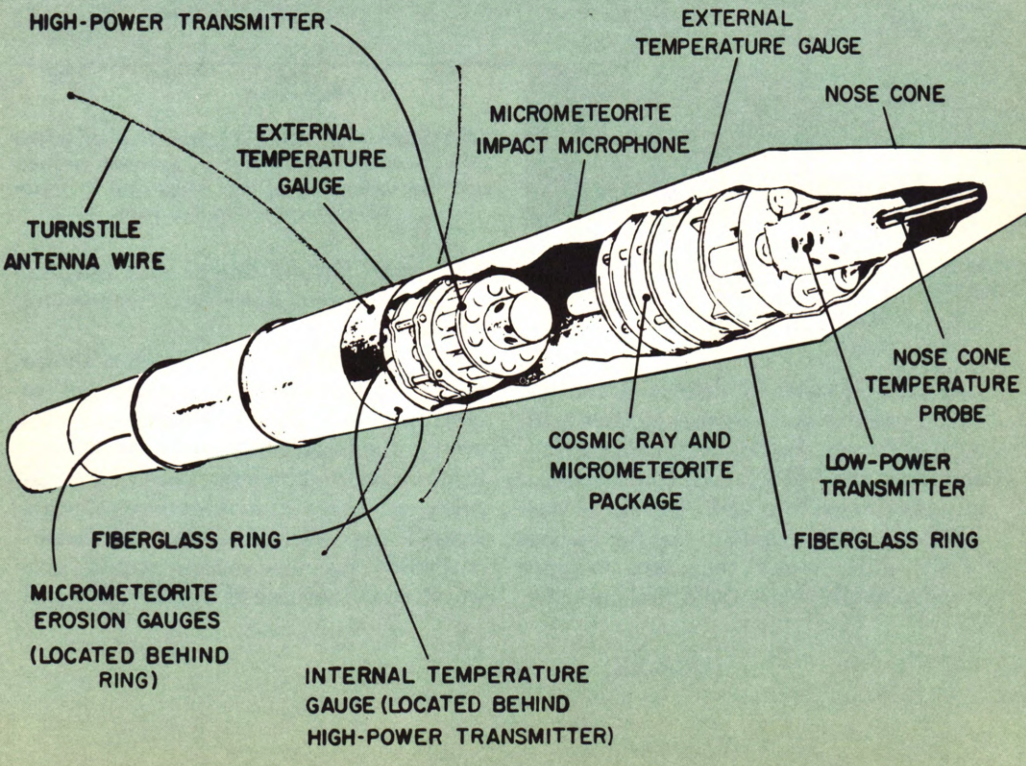
SPACE EXPLORATION

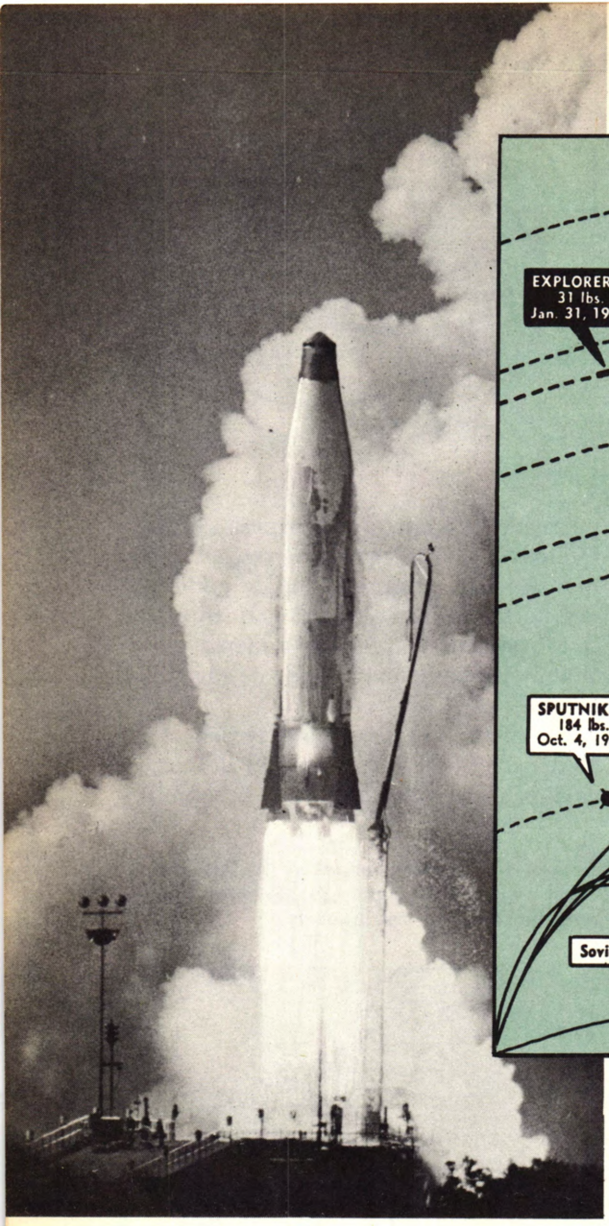
by THEODORE G. PHILLIPS, *Department of Physics, Loyola University, Amundsen Junior College, Chicago.*

Space Age Dawns. The successful launching of Sputniks I and II by Russia in 1957 gave great impetus to the development of space projects in the United States. Hardly had the full impact of the first satellite launching by Russia on October 4, 1957, been felt in the United States, when the Soviets put into orbit a second satellite, the weight of which, over half a ton, was eclipsed by the announcement that the satellite carried a female dog in an airconditioned capsule with a supply of food. At that time, United States rocketry development had not yet put a satellite into orbit. Criticism of the United States space program ranged from that levelled against economy-mindedness to the failure of the American education system to prepare students adequately in mathematics and the physical sciences.

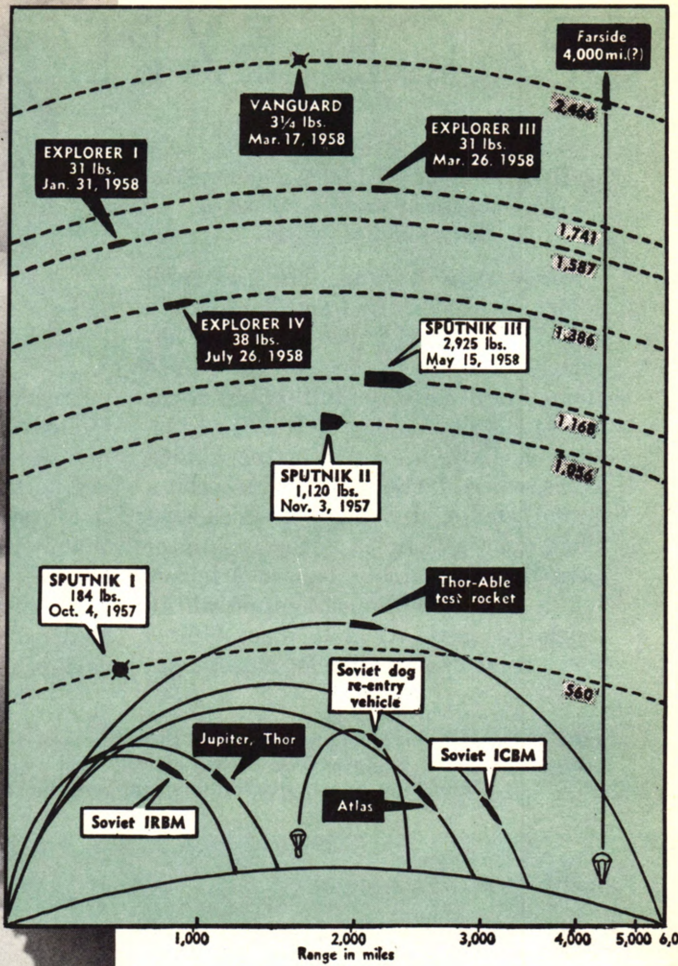
Although the compelling reasons for increased interest in the rapid development of space technology have been mili-

THE EXPLORER, first U. S. earth satellite, shown here in a diagram released by the Defense Department. The Explorer was 80 inches long and weighed 30.8 pounds. Both the low and high power transmitters sent back information continuously.





ATLAS ICBM roars successfully away from its launching site at Cape Canaveral, powered by three engines.



SATELLITES AND ROCKETS launched up to the latter half of 1958. Three U. S. moon probes, and the launching of the Atlas and Explorer IV, came later in the year.

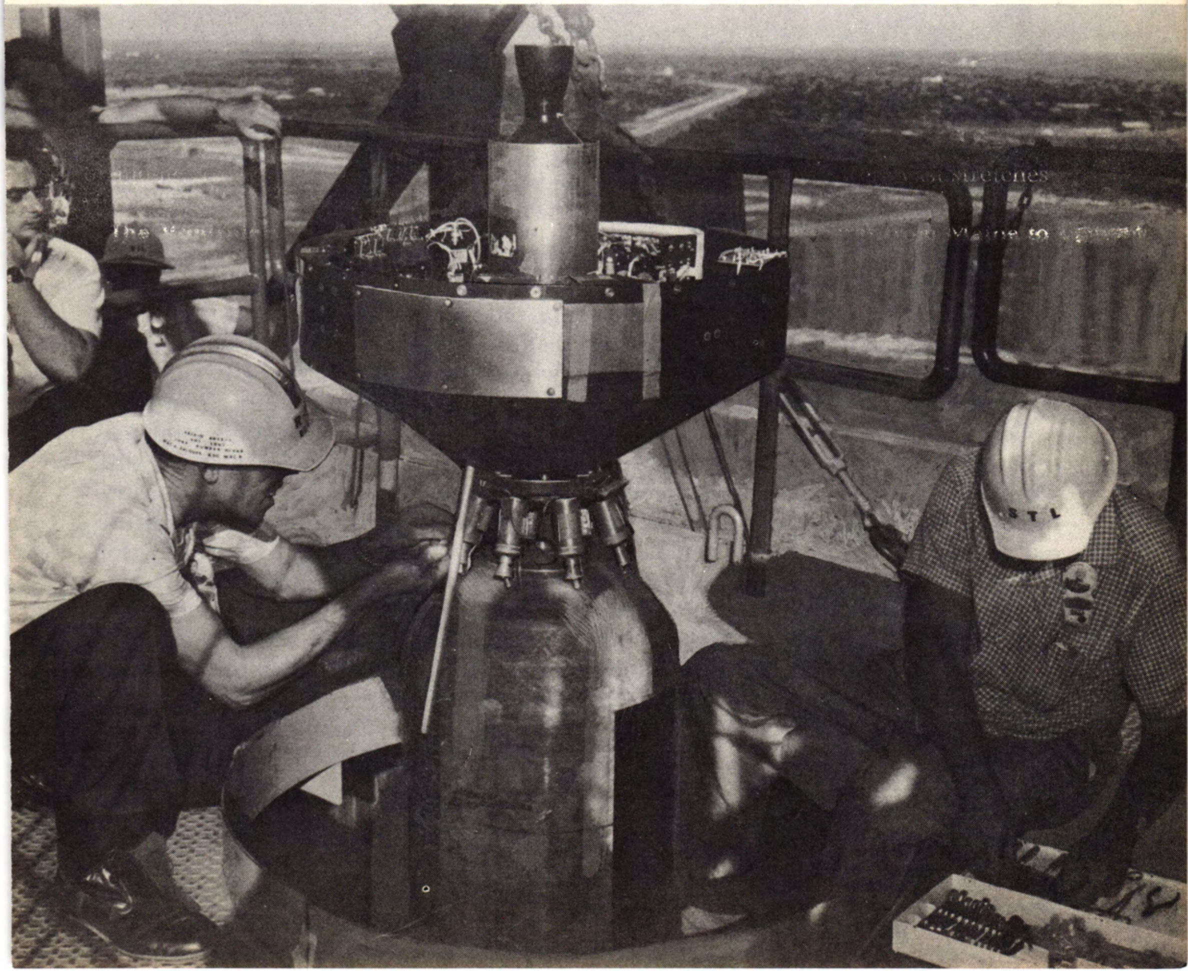
tary uses of space vehicles and the national prestige and power associated with such advances, two other important factors must also be included. One is human curiosity to explore and discover as men have done in the past to the far reaches of the earth; today, they turn to outer space to satisfy their intellectual curiosity. The second factor is that of pure research, pushing frontiers of science further and further out.

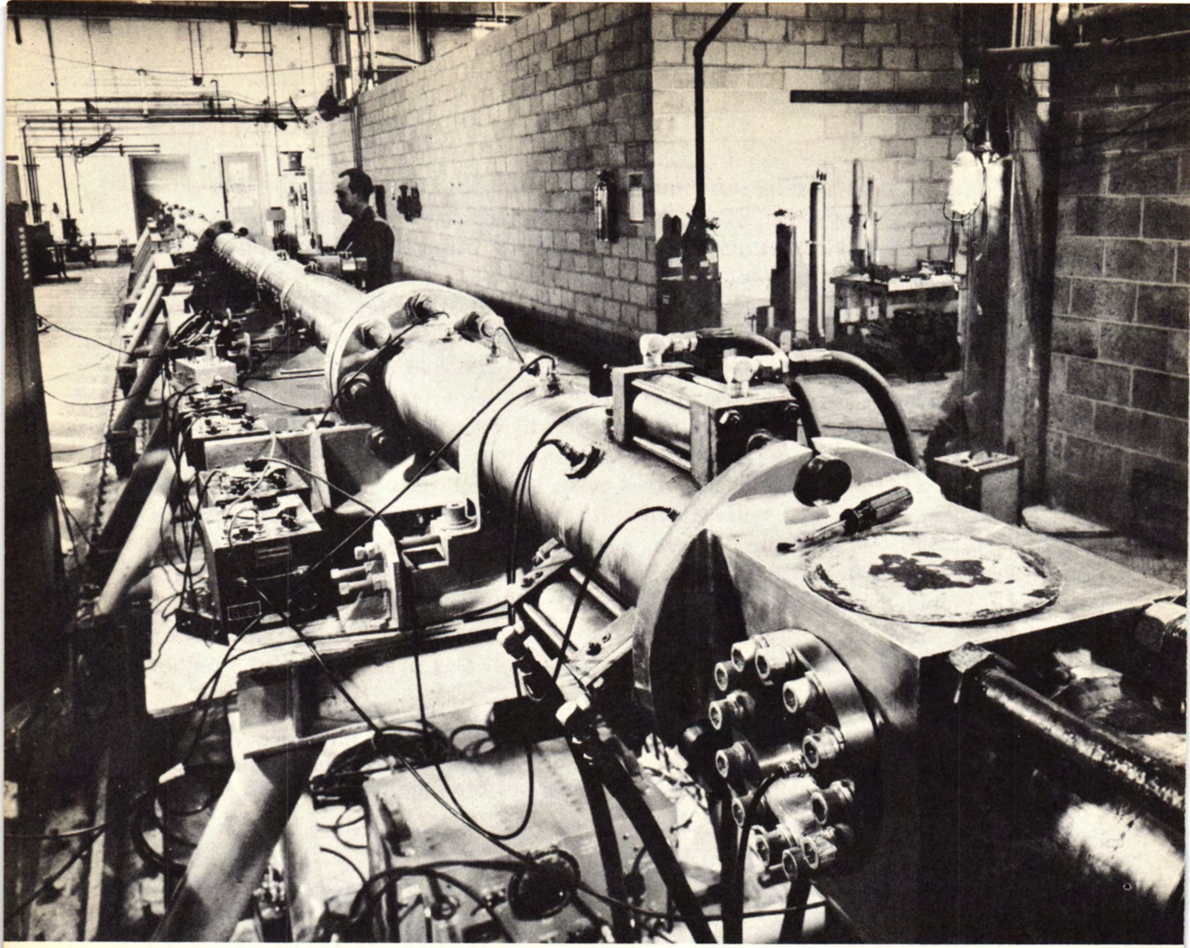
Practical Uses. Space vehicles with the proper instrumentation can be put to both practical civilian and military uses even in the foreseeable future. Such practical uses will include satellites that could relay messages and television signals around the world; others with meteorological instrumentation would give world-wide forecasts of weather; and still

others, equipped to give ships and aircraft instant and precise locations. Military use would include the launching of reconnaissance satellites that could give timely warnings of missile attacks by an enemy as well as airplane and ship movements over the earth's surface. Of course the primary military use to which such space vehicles could be put is that of delivering atomic warheads to an enemy in the event of attack. In the field of pure research, space technology will afford new opportunities for scientific observation and experimentation which will enhance our knowledge of the earth, the solar system, and the universe itself. These satellites will actually constitute miniature observatories high above the earth where observations will not be subject to the influence of atmospheric disturbances.

Theory of Satellites. The principle on which missiles, rockets, and satellites operate is a classical law of physics formulated by Newton as the third law of motion. This law states that to every action there is always an equal and oppositely directed reaction. Action and reaction are used in the sense of force. When a gun is fired, the sudden expansion of the gases in the barrel propels the bullet forward on its path with a relatively high speed, while an equal force of reaction acts in the opposite direction

SPACE TECHNICIANS adjust small Vernier rockets to the base of the moon rocket's instrumental payload at Cape Canaveral, Fla., where the satellite was hurled into space Oct. 11. The payload vehicle, called the Pioneer, sits atop the third stage rocket.





THIS EXPERIMENTAL TUNNEL is used by General Electric Company to test models of space machines under temperatures that reach as high as 18,000 degrees and at speeds up to 20,000 miles per hour.

and propels the gun backwards usually against the shoulder of the person firing it. The recoil speed is considerably lower than that of the bullet because of the much greater mass of the gun.

Contrary to popular belief, a rocket operates with increased efficiency in a vacuum, and does not require a material medium like the atmosphere for the exhaust gases to push against, for as the exhaust gases are expelled they push against the rocket in the opposite direction with greater force if they are not slowed down by the atmosphere which opposes their free expansion.

This same law of physics explains the operation of missiles, rockets, and satellites. In the case of a rocket, the expulsion of the jet causes a recoil on the rocket, called the thrust. For example, the thrust which propelled Sputnik III was some 500,000 pounds; that of the intercontinental ballistic missile Atlas is estimated at roughly 250,000 pounds. Until the Germans developed the V-2 rocket during World War II, rockets in miniature form were used almost exclusively for firework displays at Fourth of July celebrations and amusement centers. The character of the rocket was thus changed rather abruptly from that of an almost harmless attraction to a deadly weapon of destruction. The simple replacement of the war head of TNT by a collection

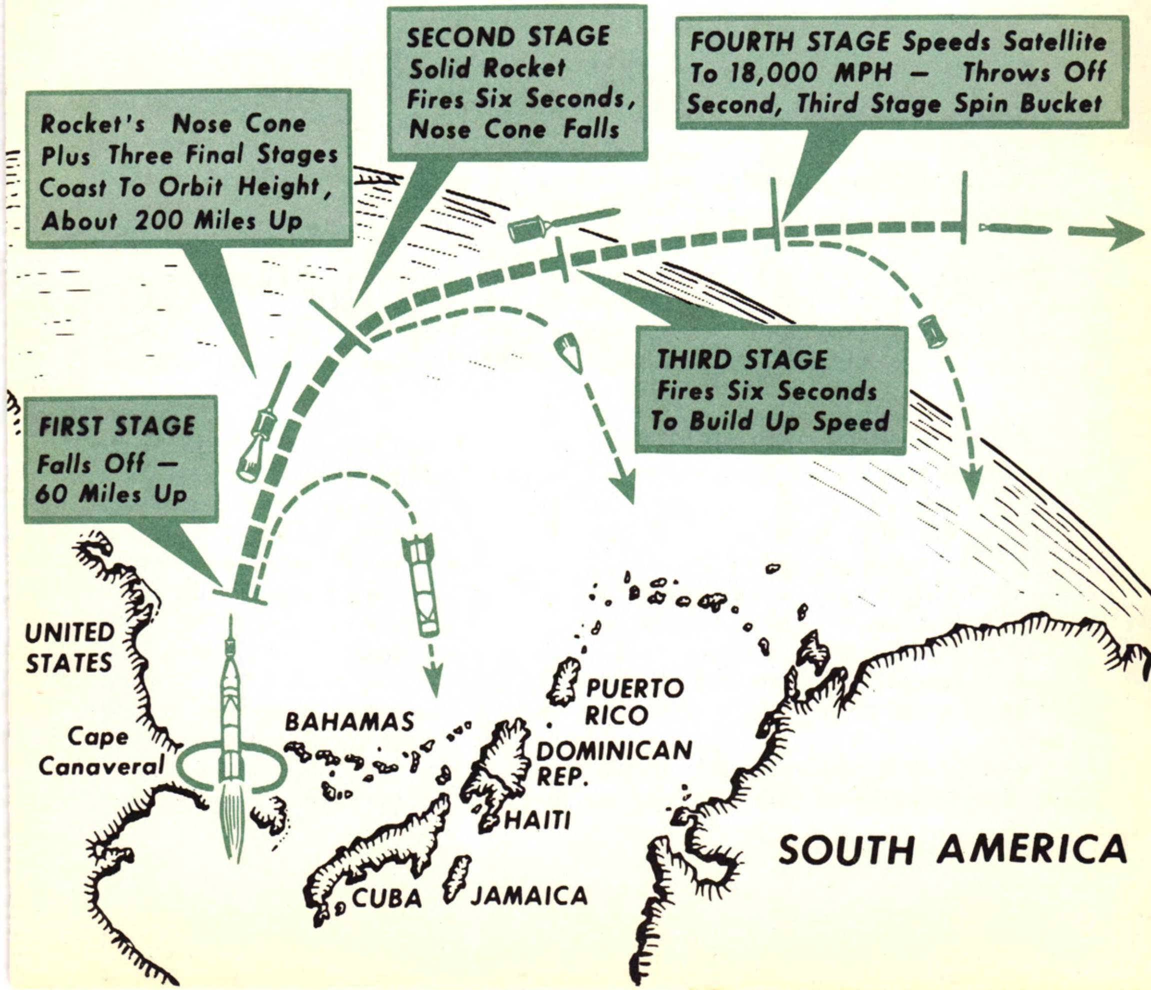
SPACE EXPLORATION

of scientific instruments equal in weight transforms the rocket into a piece of research equipment.

To project a missile so that it will escape the pull of gravity and leave the earth, a velocity known as the velocity of escape must be imparted to it. For bodies bound to the earth's surface, the velocity of escape is seven miles per second or about 25,000 miles per hour. With such a velocity, the earth would not be able to pull the body back to the surface, and such a missile could be directed to a target in the solar system. Surprisingly, the velocity to the moon is only about 300-feet-per-second less than that to escape infinitely far.

Missile Development. After World War II rapid development of ballistic missiles was undertaken as the next step in the conquest of space. A ballistic missile is one which travels through a considerable part of its journey without guidance or continued propulsion. Ballistic missiles are classified according to their range as the 1,500 mile intermediate range ballistic missiles (IRBM) and as the 5,500 mile intercontinental missiles (ICBM). There were some official indications in the United States that the production of the ICBM would be accelerated because of reluctance on the part of some NATO Allies to set up IRBM bases, which might be potential Soviet targets.

DIAGRAM INDICATES **the main stages in the firing of Jupiter C rocket to send its little satellite, Explorer III, into orbit.**



The ICBM, however, was not to be operational for some months, although the IRBM's were scheduled for delivery to Europe under a decision by NATO.

The Air Force's Thor, the Army's Jupiter, and the Navy's Polaris are some ballistic missiles of the IRBM type. The Jupiter is not to be confused with the Jupiter C, which was used to launch the first American satellites, Explorers I, II, and III. Of the ICBM type, the Atlas is the best known although very few details of this missile have been released.

The Space Record. Early in 1958, the United States launched its first space satellite, Explorer I. Basic data relating to the five U. S. satellites, and the three Soviet satellites put into orbit during 1957-58 are summarized in the following tabulation.

SATELLITE	Maximum Height in Miles	Minimum Height in Miles	Orbit Time in Minutes	Date of Launching	Date of Fall to Earth	Mass in Pounds
Sputnik I	560	145	96.2	October 4, 1957	January 4, 1958	184
Sputnik II	1,056	150	103.7	November 3, 1957	April 14, 1958	1,120
Explorer I	1,587	219	114.5	January 31, 1958		30.8
Vanguard	2,466	405	134	March 17, 1958		3.25
Explorer III	1,741	117	115.7	March 26, 1958	June 27, 1958	31
Sputnik III	1,168	150	106	May 15, 1958		2,925.53
Explorer IV	1,386	178	110	July 26, 1958		38.43
Atlas	928	118	100	December 18, 1958		8,700

Although the table indicates a weight of 8,700 pounds for the Atlas, the originally publicized weight, it should be pointed out that later press releases placed the actual payload of the instrumentation at only 167 pounds. The Atlas satellite was unique in that it broadcast back to earth, both in code and in the voice of President Eisenhower, a message of peace to all people at the Christmas season.

Man Next? Reports released by Russia on the endurance of Laika, the dog in Sputnik II, indicate that even a biological system as complex as that of man can withstand the tremendous accelerating forces necessary to put a satellite into orbit, as well as survive during the stage of weightlessness afterward. The recent launching of a small monkey into space by the Army in the cone of a Jupiter missile is the first attempt to fire and bring back alive a primate.

Although the United States attempted unsuccessfully to reach the moon with a rocket on four occasions in 1958, Pioneer I did soar some 71,300 miles into space, about one-third of the distance to the moon at closest approach to the earth. This attempt was man's farthest venture into space. Despite the failure of other moon probes to break the bonds of gravity and escape from the earth's pull, these satellites served a useful purpose as research vehicles equipped to send back data about natural phenomena high above the earth's surface. Instruments on Pioneers I and III measured temperature, radiation, the magnetic field of the earth, and meteorite density. The Air Force, which conducted the first three of the lunar probes, tried to hit or come close to the moon; the Army in the fourth probe attempted to orbit the moon.

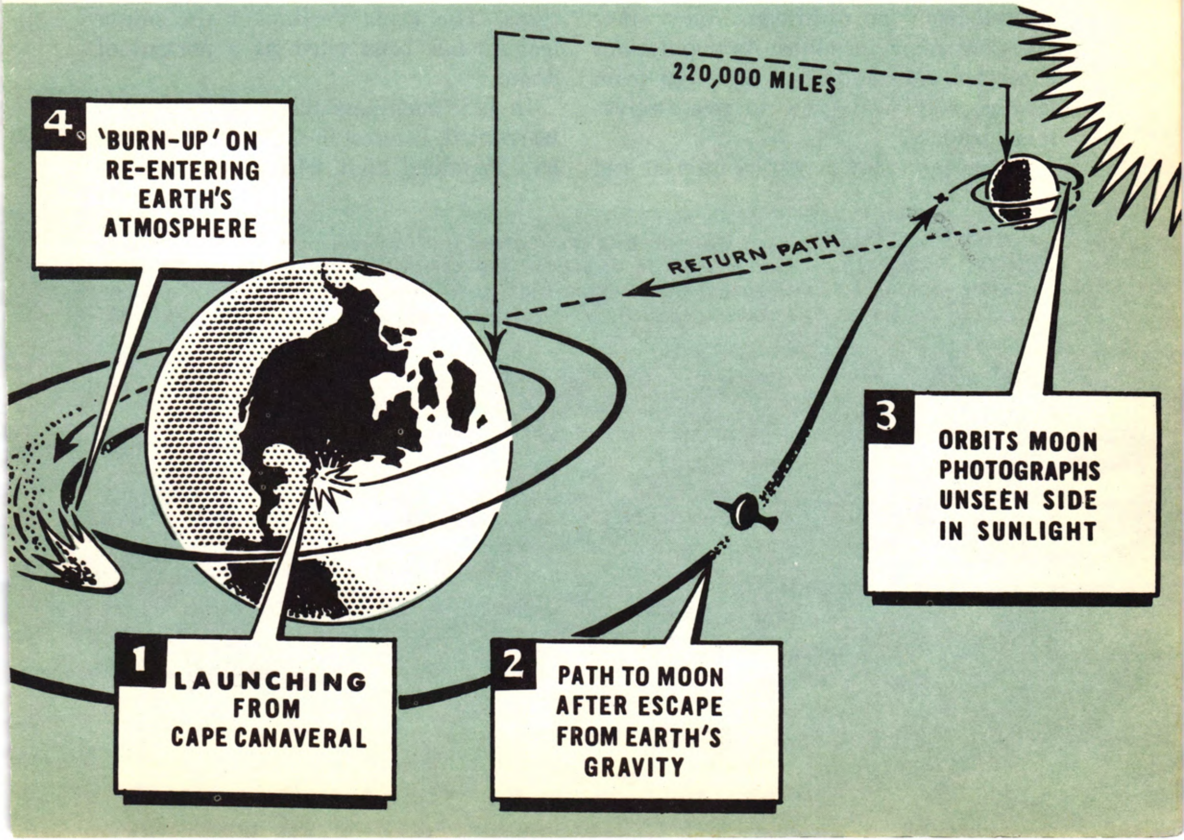
Summary data for the four moon probes are given in the following table:

SPACE EXPLORATION

Moon Probe Satellite	Date of Launching	Height in Miles
Unnamed	August 17, 1958	Exploded 77 seconds after take-off
Pioneer I	October 10, 1958	71,300
Pioneer II	November 8, 1958	1,000
Pioneer III	December 6, 1958	63,000

Evaluation Difficult. At the close of 1958, the status of the United States program in the space race with the Soviet Union was extremely difficult to evaluate. Even the experts in the field were not agreed about our progress in rocketry. Some experts were convinced that the instrumentation of the American satellites, despite their small payloads, was considerably more sophisticated than that of the Soviet missiles. On the other hand, the tremendous thrusts throwing into orbit the heavier payloads of the Soviet satellites, as much as 2,129 pounds of instrumentation in Sputnik III, exceeded by far the thrusts projecting the American vehicles. Undoubtedly the gap breached by the Soviets in launching the first satellite had been closed somewhat; it was, however, questionable whether the United States could be considered an immediate contender for first place in rocket development. It could be conjectured that the orbiting of the moon and the launching and recovery of a satellite with a man were projects of high priority in both the American and Soviet space programs. Immense international and scientific prestige would redound to whichever nation first succeeded in performing either feat.

FIRST U. S. MOON SHOT was launched August 17. The diagram shows the course it was intended to follow.



SPORTS

BASEBALL

Quiet Endings. Quite possibly the dullest American League race in history marked one phase of baseball in 1958. And even the National League, which has enjoyed its share of "cliffhanger" finishes in recent years, tailed off to a quiet close after a splendidly competitive first half.

But if there was nothing especially noteworthy about the pennant campaigns, 1958 nevertheless was an historic year. Major league baseball moved to the West Coast, a memorable event foreshadowing further franchise shifts and eventual expansion of teams and even of leagues. In the short span of five years, the number of major league cities has increased from ten to fifteen. Many other cities are eager for clubs. As populations climb, the old standard of two eight-team leagues may well grow to two twelve-team leagues.

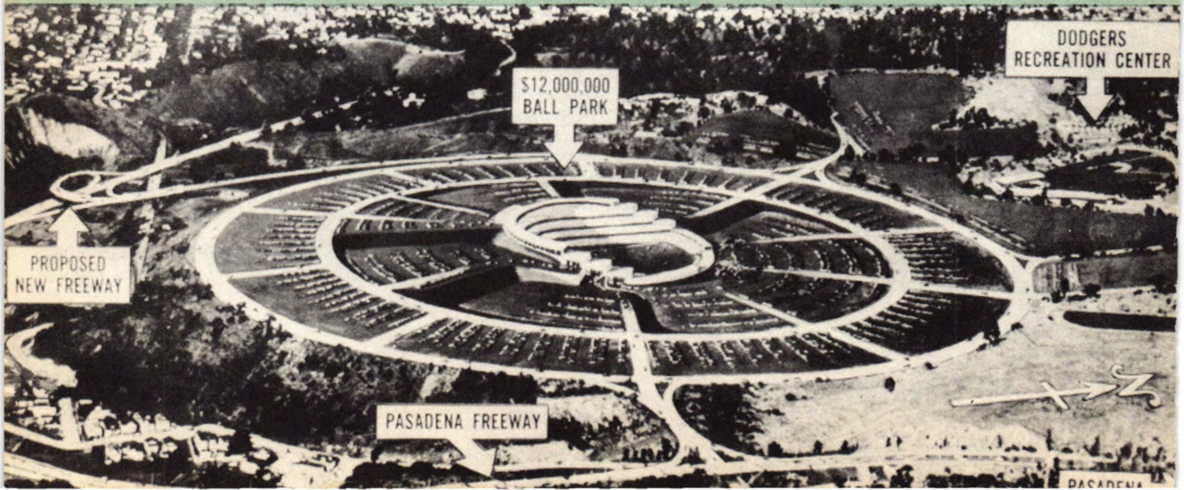
Interleague play may spice interest and such innovations as two major league clubs playing occasionally in a non-major league city has become well within the bounds of future planning. At least these things were predicted freely in 1958, where only a few years ago such ideas seemed decades distant.

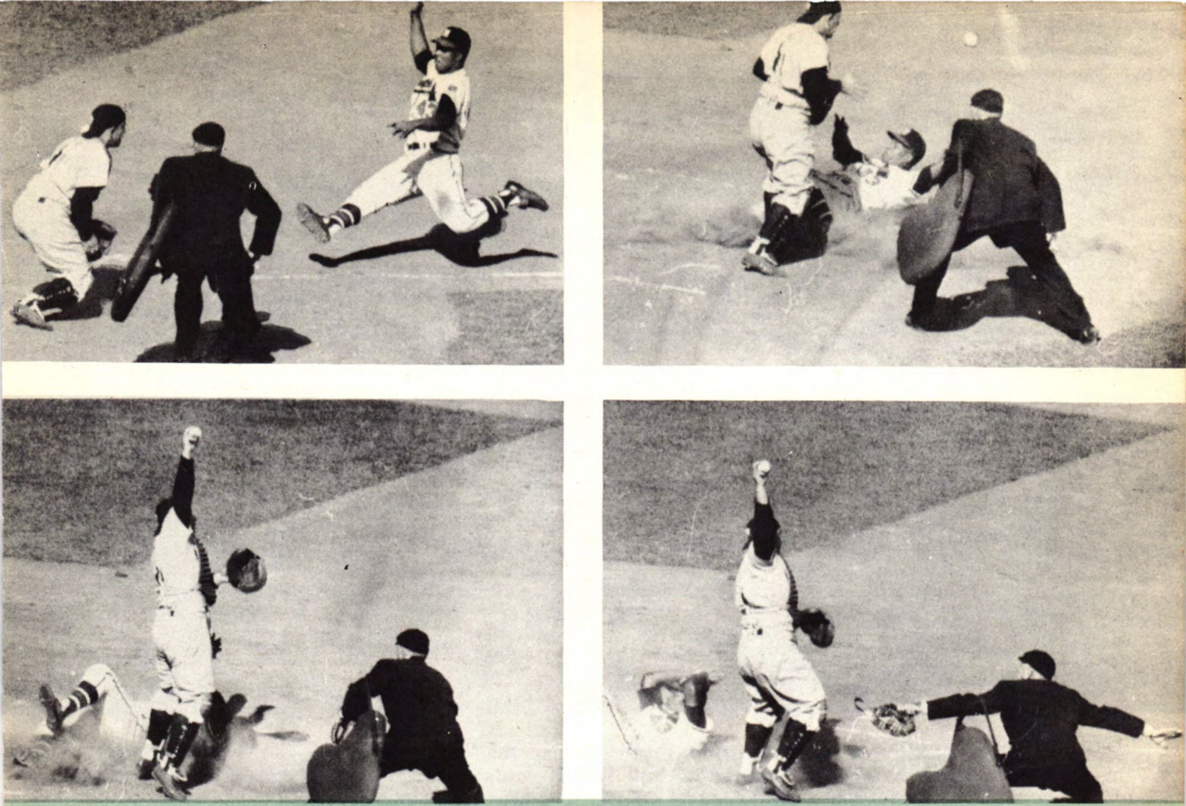
Expansion may not happen quickly, and it probably can only come with a new system of distributing baseball talent. No established club owner wants to break up a good team on which he has spent a fortune. So the means of expansion have yet to be worked out, and no observer thought it would be easy.

Hardly a Decline. Some critics continued to look gloomily upon the future of the game, regarding it as a casualty of television and widening recreational patterns. The rapid decline of the minor leagues has been cited as a portent of doom.

In 1958 such pessimism hardly seemed warranted. Interest in major league baseball remained high, with spectator gains

PHOTO-DIAGRAM of the Los Angeles ball park which the Dodgers propose to build in Chavez Ravine. The project is now in litigation. The design is ultra-modern, with the circular parking lot surrounding the stadium built on different levels to permit easier access to the stands. The seating capacity of the stadium was to be in excess of 50,000.





WES COVINGTON, of the Braves, scores from second on single to left field by Johnny Logan in the first inning of the second game of the World Series. Then, in rapid succession, Covington goes into slide as Yankee catcher Yogi Berra waits for throw. Covington crosses plate as ball takes high bounce forcing Berra to make bare-handed catch.

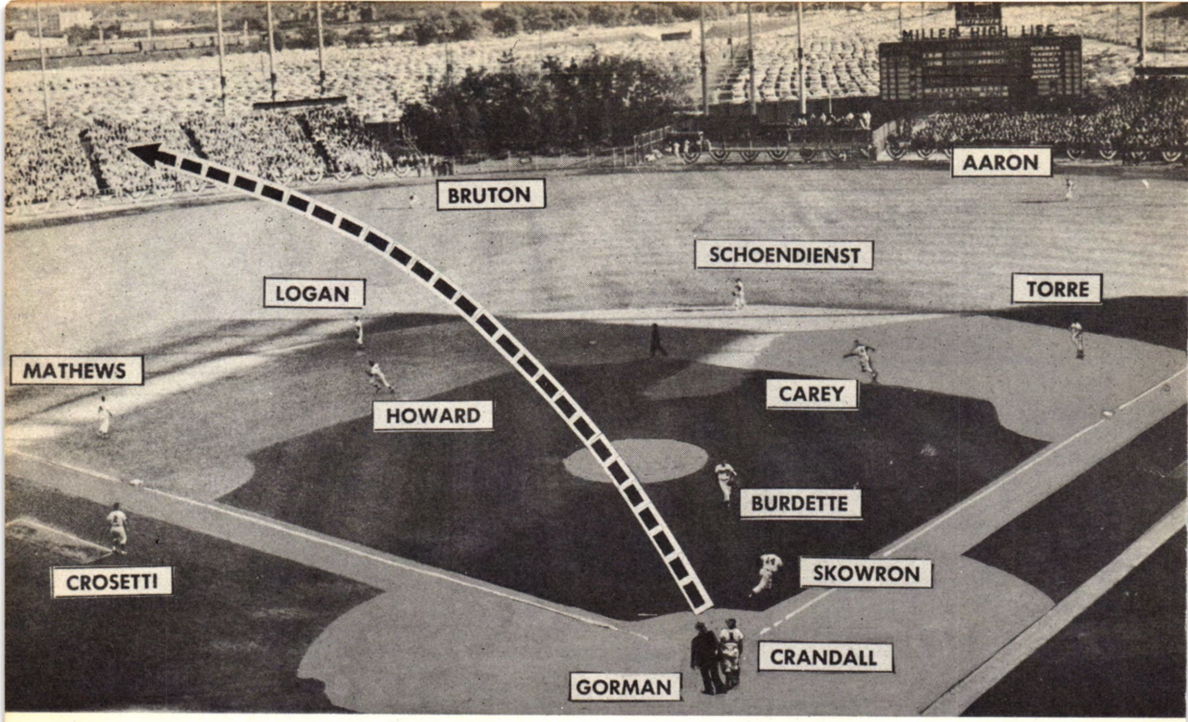
and losses related for the most part to the pennant races. Major league baseball in the last two decades has enjoyed an over-all gain of eight million admissions, even though a good deal of it is traceable to the franchise shifts.

Television's role in the game remained controversial, but it clearly has boosted interest in major league ball, much as it has hurt the minor leagues. Future pay television offers a vista of fantastic profits, with ample funds for minor league subsidy and player development programs. Other facets point to continuing growth and interest—among them the organized leagues for youngsters, and more and better high school and college ball. These seem to assure growing pools of talent for tomorrow's bigger leagues.

As a game, too, most observers credit better equipment, perfected techniques, and superior knowledge of conditioning with producing finer baseball than in the "good old days." The salaries paid now, in contrast to older eras, attract the serious, competent athlete to a professional career.

In short, baseball in 1958 showed every sign of continuing as America's truly national game. It remains superb competition, with its incomparable duel between batter and pitcher as the focal point of a many-sided sport. It is still closely tied to tradition and to sentiment; to millions still the very mention of old-time stars and teams stirs a deep nostalgia. In October most of the nation, as ever, paused tautly on every pitch in tense battles for the world title—regained once again by the matchless New York Yankees.

The Favorites Win. The favored teams



THE YANKS got a 6-2 lead in the final game of the World Series on Skowron's homer. Broken arrow indicates course of ball to left center bleachers as Elston Howard and Andy Carey move around to score ahead of Skowron.

won pennants in 1958, with the Yankees having the easiest time. Off to a tremendous start, Manager Casey Stengel's Bombers captured 24 of their first 30 games for an eight-game lead. By July they had an eleven game margin. By August 2 they led by 17 games—the biggest advantage ever recorded at this stage of the season. From this point on, obviously, it was simply a matter of coasting.

The Chicago White Sox, off to a miserable start, finally spurted to within 11½ games on August 18. Then, going into New York, they lost two out of three to erase the final faint hope of pursuit. Eventually the pennant-winning bulge over the second place Sox was down to ten games.

The familiar Yankee story of balance, power, and depth was again too much for all rivals. Mickey Mantle had a comparatively poor year but still hit .304, drove in 97 runs, and smashed 42 homers, tops in the league. Elston Howard, at .314, paced the club in hitting. The powerful mound staff was led by Bob Turley, a 21-game winner, and Whitey Ford, notching 14 victories despite arm trouble.

The White Sox played well the last half of the season behind the fine pitching of Billy Pierce and Dick Donovan, but the early slump and lack of power kept them from contention. No other American League club made any real gesture at any stage. About all that could be said for the rest of the league was that it had balance.

Williams Again. Established stars pretty much dominated play. The great Ted Williams of the Boston Red Sox edged out his teammate, Pete Runnels, for the batting crown. Winning it for the sixth time, Ted hit .328, Pete .322. Then came Detroit's Harvey Kuenn at .319. Rocky Colavito of Cleveland rapped 41 homers and drove in 113 runs. Boston's Jackie Jensen batted in 122 runs to lead the league in this vital department. Another star was Roy Sievers of Washington with 39 home runs and 108 runs driven home.

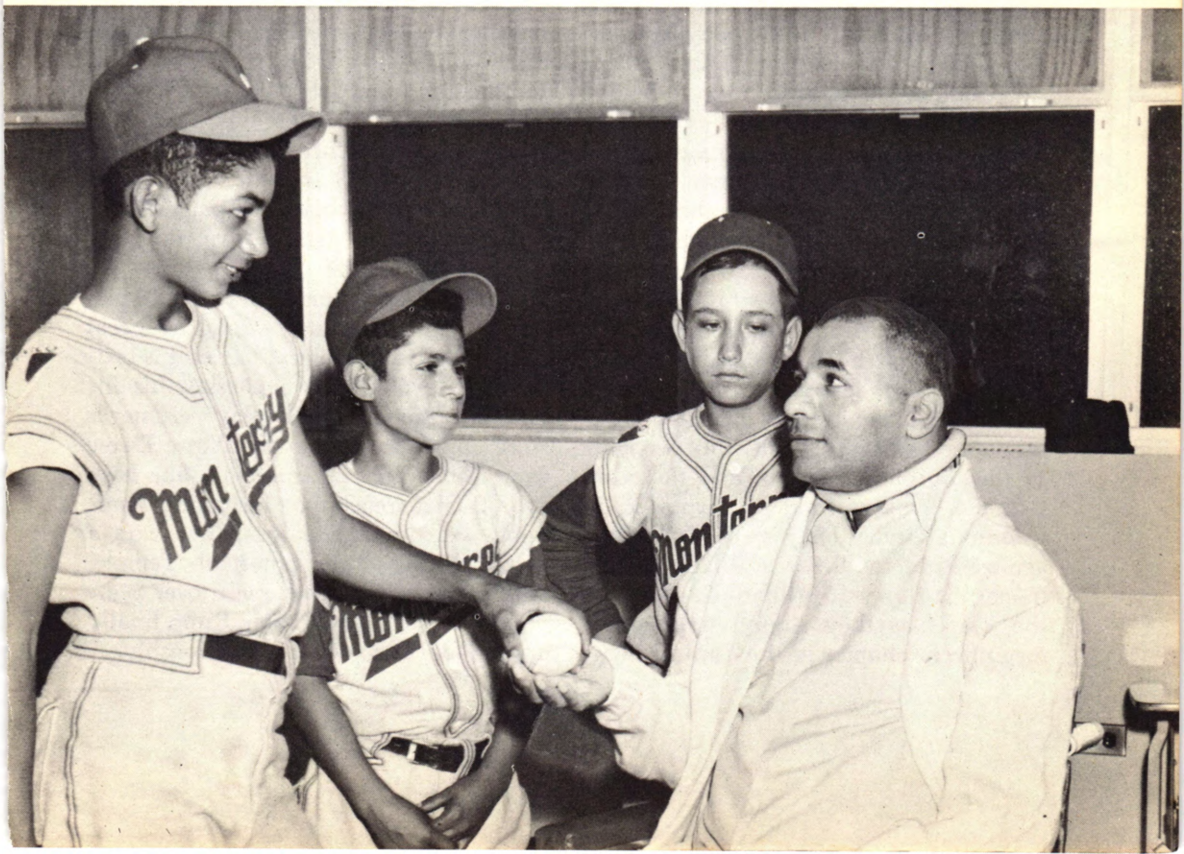
The National League race had two distinct phases. In the first half scramble no team dominated. As late as July 15, only six and one-half games separated the first and last place clubs, with surprising San Francisco only a half game from first place and the even more astonishing Chicago Cubs just $2\frac{1}{2}$ games from the top.

Then early in August the favored Milwaukee Braves swept a series from the Giants to take a five game lead. Thereafter Manager Fred Haney's defending champions were never in serious trouble. In mid-August the Pittsburgh Pirates crept to within six games of the top, giving the Steel City its first touch of pennant fever in twenty years. Even though they could not close the gap, and finished eight games behind Milwaukee, the Pirates ranked as the surprise team.

Milwaukee overcame injuries, with fine help coming from its youthful twirlers, Willey, Pizarro, and Jay. They took up the slack behind the superlative efforts of Warren Spahn and Lew Burdette, who won 22 and 20 games respectively. The brilliant, durable Spahn became the first left hander in history to win twenty or more games in nine seasons. Hank Aaron's .326 average paced Brave regulars.

Ashburn vs. Mays. A close race for the batting crown went to Richie Ashburn of the last place Philadelphia Phils. His .350 was three points better than Willie Mays could compile for the San Francisco Giants. Stan Musial, the mighty St. Louis star, hit .337 and during the

TRAGEDY ENDED THE GREAT BASEBALL CAREER of Roy Campanella, Brooklyn Dodger catcher, paralyzed as the result of an automobile accident. Three times Campanella was voted the most valuable player in the National League. Here he gets a "get well" ball from Hector Torres, who pitched and won the final game in the Little League World Series for the team from Monterrey, Mexico.



SPORTS

season became the fifth player in history to make 3,000 hits. Ernie Banks of the Chicago Cubs slammed 47 homers and drove in 129 runs—tops in these departments for both leagues. Bob Friend of Pittsburgh was the fourth twenty game winner in the majors in 1958. He captured 22 decisions.

Attendance in the National League climbed from 8,819,601 to 10,163,568, primarily because of the shift of the Giants and Dodgers to San Francisco and Los Angeles. The lopsided American League race cut attendance from 8,196,218 to 7,295,914, lowest in five seasons.

Great Comeback. No Yankee World Series triumph ever came harder than in 1958. Whipped in the first two games, then behind three games to one, the Yankees rallied for three straight victories over Milwaukee's defending champions. Not since 1925 had a World Series contender staged such a comeback.

The opening game was a pitching duel between Warren Spahn and Whitey Ford, with the Braves winning in the tenth inning, 4-3. The next day Milwaukee scored seven times in the first inning and romped to a 13-5 victory behind Lew Burdette.

Don Larsen and Ryne Duren combined to blank the National Leaguers, 4-0, with Hank Bauer driving in all the Yankee runs. But New York hopes faded again the next day when Spahn twirled a masterful two-hit shutout to win 3-0.

Bob Turley whitewashed the Braves, 7-0. In the sixth game, despite another great effort by Spahn, the Yanks won a 4-3 thriller in ten innings. The final game was tense and tight. Then with two gone in the top of the eighth, and the score 2-2, the Yankees suddenly exploded in traditional style. They scored four runs against Burdette, three on Bill Skowron's homer. Turley was brilliant in relief for the Yanks as they wound up another magnificent chapter in the Yankee story.

BASKETBALL

Kentucky Again. Kentucky's Wildcats won no exceptional attention during the regular 1957-58 college basketball campaign. More headlines went to such teams as Kansas, Kansas State, Temple, West Virginia and other clubs with flashy records or high-scoring stars. But the cage world learned once again by tournament time not to discount the mastery of Adolph Rupp, the Kentucky coach with a flair for building champions.

Three times in ten years Rupp molded national championship fives—a feat unequalled in college ranks. There might have been a fourth, but one of Kentucky's greatest teams could not compete in the NCAA tourney because of a suspension growing out of "point-shaving" scandals of the previous year.

Since that bitter time, in 1952, Rupp had been even more dedicated in his quest for championships. His 1957-58 squad promised to be good enough for another Southeastern Conference title, perhaps, but for little beyond such honors. With swift-driving guards in Vern Hatton and John Crigler, a deadly shooter in Johnny Cox, and a stable center in Ed Beck, the Wildcats took their conference crown. They suffered only six losses in a typically hard campaign. However, few favored them to sweep on to a national NCAA title.

By the second tourney round, the picture changed. Kentucky would be a real contender. Rupp's logical tactics, his brilliance in exploiting weaknesses, his insistence on flawless team play were never more apparent than in the Notre Dame game. The Wildcats stunned a fine Irish five, 89-56, to reach the tournament semifinals. Next, as underdogs, they won a 61-60 thriller from powerful Temple. Still, as underdogs, they raced over Seattle, 84-72. The redoubtable Rupp finally has his fourth national championship.

Temple whipped Kansas State, 67-57, for third place.

Skyscraping Stars. A number of individual stars, most of them towering well above six feet, glamorized the 1957-58 campaign. Three of them were involved in the championship bracket. Temple built its attack around Guy Rodgers, not only a brilliant scorer but superb on defense and as a feeder. Seattle boasted Elgin Baylor, a phenomenal scoremaker, while Kansas State had six-foot, nine-inch Bob Boozer, the key in a front line that also had Roy DeWitz and Jack Jarr, each at six feet, eight inches. Skyscraping Wilt Chamberlain of Kansas and the amazing sophomore, Oscar Robertson of Cincinnati, rounded out an All-American five of remarkable scoring ability.

Seattle lost only five regular season games. To get to the NCAA finals the Westerners had to overcome the favored San Francisco Dons, 69-67, in the regional semi-finals, turn back stubborn California and upset Kansas State.

Kansas State, only thrice defeated in the regular season, won its big one against Cincinnati and its wondrous Robertson, 83-80. A good many experts thought the winner of this one would go on to the title. State did dispose of Oklahoma State, 69-57, before stumbling against Seattle.

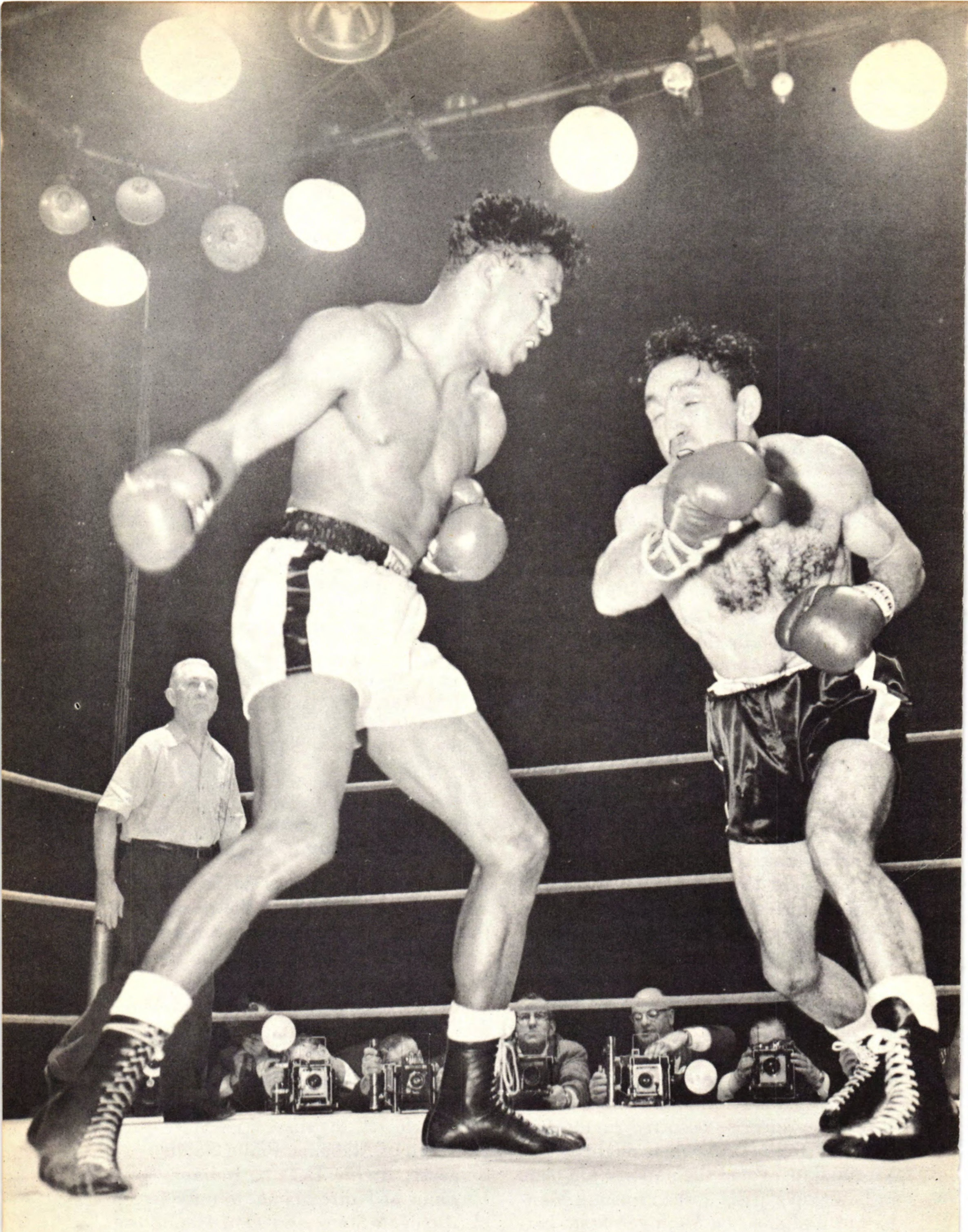
The Mighty Fall. The usual rash of upsets marked both regular season and tournament play. One of the most spectacular surprises came in the National Invitational Tournament. Lightly regarded Xavier of Cincinnati, carrying a modest 15-11 record into the tourney, upset four rivals and whipped Dayton in the finals, 78-74.

Another surprise occurred in the first round of the NCAA when mighty West Virginia, just voted the nation's top team in newspaper polls, lost to unsung Manhattan. Indiana and Michigan State battled for the Big Ten crown, with Indiana winning the showdown game. The finalists of 1957, Kansas and North Carolina,

CINDERELLA TEAM OF THE COLLEGE CAGE TOURNAMENTS in 1958 was Xavier University of Cincinnati, winner of the National Invitational Tournament, when it upset Dayton, 88-84. Here Xavier's Ducky Castelle scores on a twisting layup shot in the all-Ohio championship battle.

started out the season as co-favorites for national honors. Despite the presence of the fabulous Chamberlain, Kansas was no match for Kansas State in the Big Eight. North Carolina lost its Atlantic Coast Conference title to Maryland. Duke and North Carolina State were also powerful fives in this strong conference.

Other individual stars included Lloyd Sharer and Jerry West of West Virginia, Bailey Howell of Mississippi State, Jack Kubiszyn of Alabama, Eddie Goldberg of Syracuse, Archie Dees of Indiana, Tom Hawkins of Notre Dame, Johnny Green of Michigan State, and Don Hennon of Pittsburgh—a five foot, $8\frac{1}{2}$ inch "midgit" in a world of giants, yet still one of the nation's top scorers.



THE REMARKABLE DURABILITY OF "SUGAR" RAY ROBINSON was displayed again in March when he won the middleweight boxing title for the fifth time. He took the crown away from Carmen Basilio, right, defending champion, on a split decision in the third of their bitterly-fought battles. No other middleweight has ever won the belt as often.

BOWLING IS FOR LADIES, TOO, and they have helped to swell America's ever-growing army of keglers. Swank bowling "palaces," replete with bars, lounges, and even baby-sitting rooms are no longer unique. In this stylish bowling center, women enthusiasts, while awaiting their turn, may check their youngsters in playrooms.

BOWLING

Sport for All. For many a decade the game of bowling was looked upon with disfavor by most elements of society. Dingy buildings, often unsavory surroundings, were typical of the alleys where "toughs" would gather. Gradually the settings improved, but for a long time it remained primarily a man's sport. It wasn't too long ago that young men were still being admonished to stay away from the pool halls and bowling alleys.

Now all this has changed, or is changing rapidly. Bowling has become tremendously popular not only for men but for women and children as well. It's a family game now. It has even become fashionable, for example, in many suburban areas, where women have their own morning leagues and youngsters compete in the afternoons. As many as 22,000,000 Americans enjoy the game, and perhaps 7,500,000 of them are women.

Why such popularity? The reasons are clear-cut: clean, attractive, even resplendent surroundings, the impact of television, and a clever bit of automation called the automatic pin-setter. Not to be overlooked, either, are the spread of suburban developments and shopping centers, more leisure time, and the discovery that anybody can bowl and have fun—and even if one's score is 75 to start with, there's always that next time. It has the same individual appeal as golf, but it's cheaper, handier, and easier — except for those who want to become really proficient. Then, as millions have found out, skill can only come with constant application and practice, as in any other sport.

The new bowling "palaces" are something to behold. Some of them have "accessories" in the form of fine restaurants, cocktail lounges, beauty parlors, barber shops, and other facilities. Gaudy entrances and lounges compare with those of new motels and hotels. Not only do

some of them have nurseries, but closed circuit television permits the bowling mothers to watch their children between frames.

Fading Pin Boys. In 1957 in the United States about 625 new bowling buildings arose, setting a pattern that appears bound to make bowling a game of fun and fashion for all. The thing that makes this possible is the automatic pin-setter. When the economic boom began during World War II, pin boys (or men) became scarce. And they became fussy about their hours. All this speeded the search for an automatic pin-setting device. The first practical one appeared in 1946. Since 1950 many thousands have been installed, and they are gradually putting an end to the bothersome job of manually placing pins—and all the labor problems that go with it. The automatic setter isn't concerned with hours, so round-the-clock bowling is becoming commonplace. Before the pin-setter, many bowling lanes could find only enough manual help for the regular leagues. The open bowling which pulls in women and young people and newcomers had to await automation.

Watching the Stars. Television has stirred the interest of millions. Watching the nation's finest keglers performing on TV—and making it look easy—has introduced many to what is essentially a simple game to understand. The natural reaction of the TV viewer has been to give it a try himself—or herself. Once started, the average person wants to keep at it. For even the poorest bowler will have the occasional thrill of a strike, while the average one will occasionally rack up a game or series of championship calibre.

Bowling is now considered the No. 1 participant sport in America. It fits so neatly into the recreational pattern of modern society that most experts feel it stands at the threshold of even greater golden days.

FOOTBALL

Surprise Champions. Unheralded Louisiana State, just a lowly team of the Southeastern Conference in 1957, marched to top national honors in 1958 in one of the surprise performances of the decade.

An explosive backfield paced by a whirlwind halfback named Billy Cannon led the Tigers through ten games unbeaten and untied. No other major college team could complete an unblemished season, so both press associations voted L.S.U. the Number 1 eleven. The feat also won for Paul Dietzel Coach-of-the-Year honors, and for his Tigers automatic selection to the Sugar Bowl.

Three other powerful teams were unbeaten, but Army, Auburn, and the Air Force Academy had to settle for one tie apiece. Led by Pete Dawkins, winner of the Heisman and Maxwell trophies as Player-of-the-Year, Army capped its best year since 1949 by blasting Navy, 22-6. Only a tie with Pittsburgh marred the Cadet slate. Auburn was tied by Georgia in rolling to a mark of 24 games without defeat. Under a new three-year suspension by the NCAA, Auburn could not compete in a bowl game.

With its first senior class, the Falcons of the Air Force Academy not only entered the ranks of the big-time but did it with an undefeated season. After tying Iowa in an early season surprise, the Falcons stood off inspired Colorado, 20-14, in their final game to win an invitation to the Cotton Bowl.

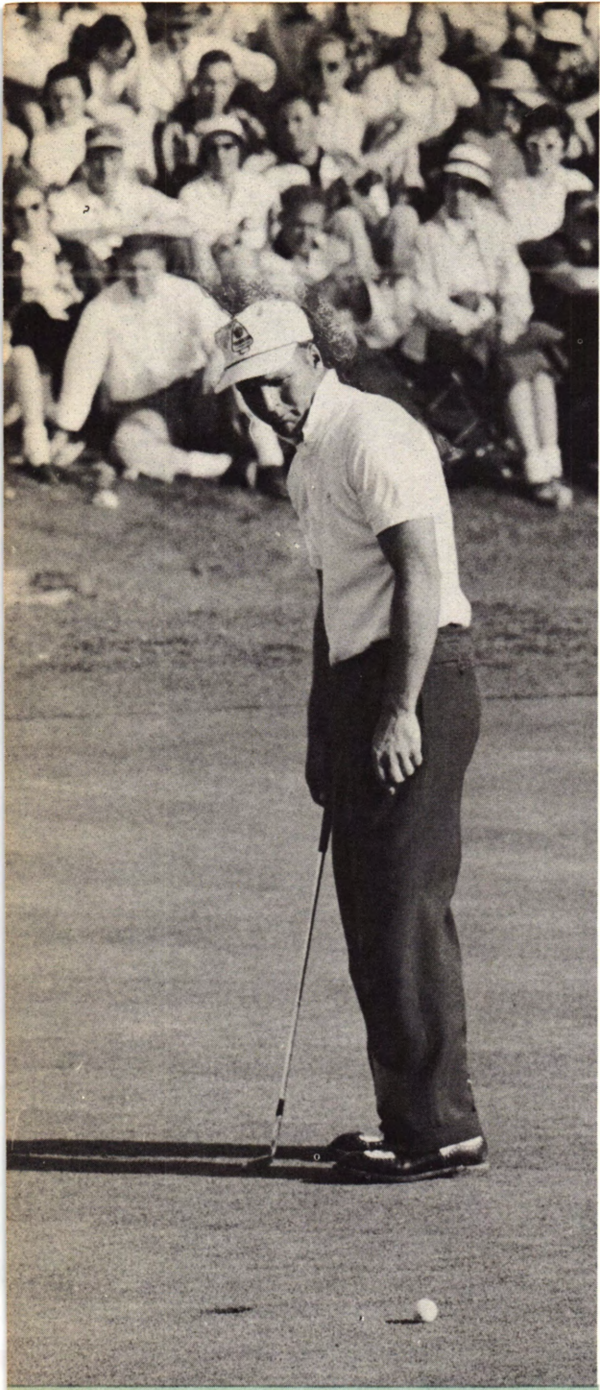
Iowa recovered from the Air Force deadlock to win the Big Ten title despite a one-touchdown loss to dethroned Ohio State. Randy Duncan, one of the year's finest backs, led a brilliant Hawkeye offense. The Big Ten had other powerhouses as usual. Wisconsin's talented Badgers lost only to Iowa and tied Ohio State, while the Buckeyes, losing only to

THE 1958 TIGERS OF LOUISIANA STATE kept their season perfect by turning back rugged Clemson, 7-0, in the Sugar Bowl, while Iowa speed and power crushed California, 38-12, in the Rose Bowl. In the other major bowl battles on New Year's Day, 1959, Oklahoma speed overcame Syracuse, 21-6, in the Orange Bowl, and the Air Force Academy and Texas Christian scrapped to a scoreless tie in the Cotton Bowl. Here Iowa's fullback, Capt. John Nocera, smashes for ten yards during Iowa's drive for their first touchdown. Bill Patton of California makes the tackle.

Northwestern, 21-0, were tied by Purdue as well as Wisconsin.

Oklahoma Mighty Again. Strong Purdue was beaten only by Wisconsin. Otherwise the Big Ten was marked by unexpected form reversals. Northwestern was an early season sensation, Indiana rose to the first division with a 3-2-1 record, and Michigan and Michigan State, perennial contenders, slumped to the bottom of the league.

Upsets featured college play on an increasing scale. To show how meaningless rankings and comparative scores can be, Michigan State, which couldn't win a Big Ten game, defeated the Pacific Coast champs, California, as well as Pittsburgh, the team which tied Army.



THE ABUNDANCE OF TOP-FLIGHT GOLFERS competing in 1958 brought about a diffusion of titleholders. Three brand new names took over the most coveted crowns in the golfing world. Tommy Bolt captured the National Open, Arnold Palmer the Masters, and Dow Finsterwald the P.G.A. None had ever won so auspiciously before, although all had been recognized as among the best of the professionals. Here Palmer studies his final victory putt in the Masters at the Augusta National Golf Club.

Oklahoma's bid for national honors was stymied by Texas, 15-14, but otherwise the Sooners rolled on as expected despite a 7-0 scare in their finale with Oklahoma State. The Sooners haven't lost a Big Seven game since 1947.

Texas Christian, with an over-all 8-2 season, won the rugged Southwest Conference. Syracuse, next to Army the class of the East, compiled an 8-1 record and an invitation to the Orange Bowl. Dartmouth captured the Ivy League title. Clemson, 8-2, powered its way to the Atlantic Coast Conference crown and to a date in the Sugar Bowl with Louisiana State. West Virginia took the Southern Conference championship.

Another southern powerhouse was Mississippi, (8-2), which defeated capable Florida (5-3-1) 7-3, in the Gator Bowl. On the West Coast California started badly, losing its first two games, then came on to win the last Pacific Coast title with only one more loss (the league disbanded at year's end). The Bear quarterback, Joe Kapp, was one of the season's brightest stars.

Other individual standouts were Backs Bob White of Ohio State, Lee Grosscup of Utah, Dick Bass of the College of the Pacific, and Bob Anderson of Army along with Linemen Sam Williams of Michigan State, Gilbert Dial of Rice, Bill Leeka of U.C.L.A., Jim Marshall and Jim Houston of Ohio State, John Guzik of Pittsburgh, Roger Smith and Walter Burkett of Auburn, Brock Strom of the Air Force, and Bob Novogratz of the Army.

Toward a More Open Game. College football continued its popularity, with attendance at 2,586 games reaching 18,-290,274, up more than a million from 1957. More teams went to passing and spread formations, with Army's "lonesome end" winning top attention. The new scoring rule, enabling a team to pass or run for two points instead of kicking for one point after a touchdown, added

interest and decided quite a few games. The trend toward more open contests followed the lead of the professionals, whose spectacular play keeps boosting interest and attendance.

The pro game has been well-guided by a canny commissioner, Bert Bell, while its excellent draft system tends to help the weaker clubs. Each year the biggest, fastest, and most skillful college stars move up to the pro ranks. Wide use of television has helped spur interest, with home games blacked out but with out-of-town contests televised. Attendance in 1958 at 72 regular season games climbed from 2,863,318 to 3,186,130, the seventh straight year a new record has been set.

Both divisions of the National League had their share of excitement, but the second half surge of the New York Giants was the competitive high point of the campaigns. Cleveland's powerful Browns started strong, with Back Jimmy Brown slashing the big professional lines at a record clip. At mid-season, the Browns appeared to be certain Eastern Division winners. But the Giants turned them back, only to fall to Pittsburgh and trail again by two games. Detroit upset the Browns, however, and gave the Giants a last chance. Meeting in the regular season finale, the Giants edged the Browns on a last minute 49-yard field goal by Pat Summerall. This forced a playoff which the Giants won with a superlative defensive performance, 10-0.

A New Champion. Baltimore, like Cleveland, jumped off to a big lead in the Western Division, with the Chicago Bears and Los Angeles Rams in pursuit. Baltimore won nine out of its first ten games to clinch the title early, with late season losses to Los Angeles and San Francisco not coming in time to help the Bears and Rams, who finished with 8-4 records.

The championship battle between the Colts and Giants had every thrill fans

A NEW SENSATION is to be towed through the sky in a boat kept aloft by a helicopter rotor. The flying boat was demonstrated at Cypress Gardens, Fla.

can expect—with a new one to boot. For the first time in playoff history, the title game ended in a tie, forcing a "sudden death" ending. Baltimore power had carried it to a 14-3 halftime lead, but the Giants rallied in the second half for a 17-14 margin.

The New Yorkers clung to their slim advantage in the waning minutes only to see the Colts drive brilliantly to the 15-yard line, where a field goal with fifteen seconds of play tied up the game.

In the unprecedented overtime, New York won the toss and elected to receive but failed to move the ball after kickoff and punted. The Colts then took over on their nineteen-yard line and drove relentlessly 81 yards for the score which gave them their first world championship, 23-17.

In the Canadian football final, the Winnipeg Blue Bombers whipped the favored Hamilton Tiger-Cats, 35-28, giving the Manitoba club its first Grey Cup in eighteen years.

WITH FOUR SMASHING VICTORIES, the Columbia kept the America's Cup in the United States by easily turning back the bid of the Sceptre, first British challenger in twenty years. In competition off Newport, R.I., the sleek and graceful Columbia won each race by an average margin of 8 minutes, 43 seconds. Magnificently designed by Olin Stephens, and superbly handled by Briggs Cunningham, the Columbia proved to be much faster than the heavier, more rugged British craft. The Sceptre's broad fore section and tapering after section are evident in this view of boat and crew.

COLUMBIA CREWMEN, on deck, discuss the victory over the Sceptre (in background), as the America's Cup fleet streams into Newport harbor.

WINTER SPORTS

The Peerless Canadiens. By April 20 there could no longer be any doubt. The Montreal Canadiens of the late 1950's held rank as one of the finest sports teams of the first half of the century. For on April 20 they overcame the stubborn Boston Bruins to win their third straight Stanley Cup. Only one other team—the Toronto Maple Leafs in 1947-48-49—had ever before accomplished this feat.

The Canadiens had to establish their greatness the hard way in the Cup finals. The regular season, despite a chain of injuries, had been comparatively easy for this talent-laden club. By mid-February it had nailed down the National Hockey League title. No other team had ever clinched it so early. Then in the first Stanley Cup round the Canadiens swept four in a row from the Detroit Red Wings.

Boston, however, laid down a real challenge. The Canadiens won a bitterly-fought opener, 2-1, but the Bruins surged back to take the second battle, 5-2. Montreal took the third, 3-0. Boston evened the series again, 3-1. A sudden-death overtime gave the Canadiens the next skirmish, 3-2, and they struck quickly for a good lead in the final game, making it hold up for a 5-3 triumph.

CANADA'S BRILLIANT AMATEUR HOCKEY STARS captured the world championship at Oslo, Norway. Here the Canadians are routing the defending champion Swedes, 10-2. In their unchecked march to the title, the Canadians also whipped Russia, 4-2. In this bit of action the Canadian goal keeper sprawls on the ice, while a Swedish player apparently takes to the air in trying to reach the puck.

NO SPORT FOR THE TIMID is bobsledding, where trigger-quick reactions are needed to keep the heavy sleds from hurtling over icy walls at dangerous curves. Here a two-man bob streaks down a straightaway during the world championships at Garmisch-Partenkirchen, Germany.

The Canadiens enjoyed the kind of balance that goes with greatness. Even though their peerless forward, Maurice "Rocket" Richards, spent most of the season on the sidelines with an injury, the Canadiens won 43 games, lost 17, and tied ten in the regular season. The "Rocket's" younger brother, Henri, filled in to

QUEEN OF FIGURE SKATERS for the third straight year was lovely Carol Heiss of Ozone Park, N.Y. Here she bends forward from the winner's stand to receive her world championship medal at the Paris Sportspalace. Her near perfect performance in the free style exhibition gave her 1780.6 points, well ahead of two Austrian rivals, Ingrid Wendl and Hanna Walter.

become a star in his own right. Dickie Moore, Jean Beliveau and Bernie Geoffrion rounded out the fearsome Montreal offense.

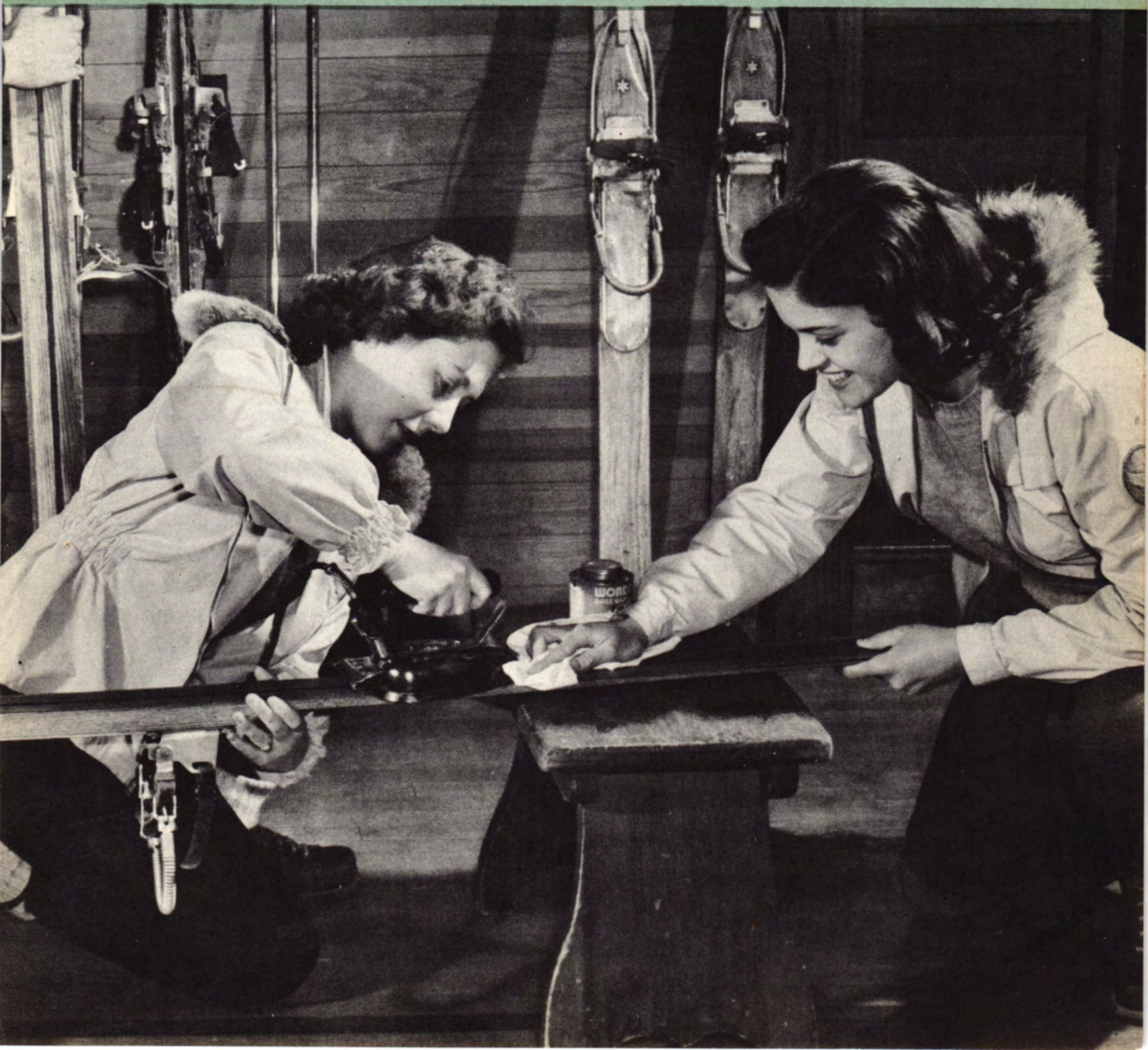
The defense, keyed around Doug Harvey, was the toughest in the league. Helping to make it so was Jacques Plante, the roving goalie with the knack of leaving the goal unattended on occasion to retrieve the puck. It usually worked, too.

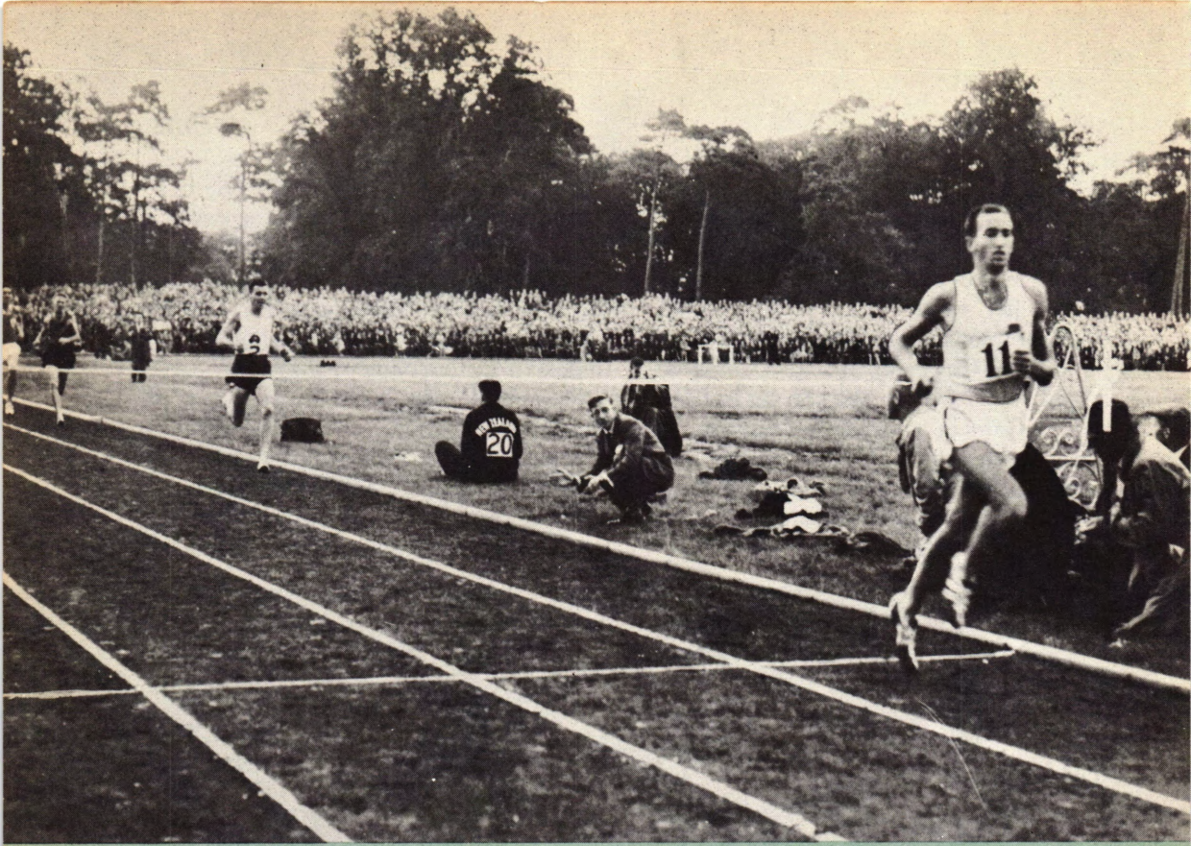
Toast of Canada. There were other winter champions who would always look happily upon 1958. Eighteen-year-old Carol Heiss of New York successfully defended her women's world figure skating championship in Paris, while David Jenkins of Colorado Springs, Colo., retained his crown as the top male figure skater. Canada toasted 23-year-old Lucile Wheeler of St. Jovite, Quebec, who won both the downhill and giant slalom titles for women in the world championships at Bad Gastein, Germany.

Toni Sailer, Austria's triple Olympic champion, continued to pace the world's skiers by capturing both giant slalom and downhill races. Canada's ice hockey team brought back the world amateur title by whipping Russia. The Canadians were unbeaten in tournament play.

Meanwhile the boom in skiing as a participant sport in the United States skimmed along at an ever faster pace. The estimated number of skiers, from tumbling beginners to swift experts, passed the five million mark. The number of

COLLEGE STUDENTS were the first group in the United States to take to skiing with enthusiasm. Now it has become a popular winter family pastime. Above, girls at Bates College, Lewiston, Me., wax their skis.





MATCHLESS MILER HERB ELLIOTT OF AUSTRALIA breaks the tape at the end of a 3:54.5 mile, the fastest ever recorded. This was the conclusion of the swiftest mile race of all time, for three other runners also shattered the old record of 3:58 in this duel at Dublin, Ireland, in August. Second, in 3:55.9, was Merv Lincoln, also of Australia. Then came Ron Delaney of Ireland, in 3:57.5, and finally Murray Halbert of New Zealand. The twenty-year-old Elliott broke four minutes in ten consecutive races—the greatest exhibition of middle distance running in the history of track.

resorts with ski lifts reached 230—including the first closed gondola lift at Wildcat Mt., New Hampshire.

Although the skiing boom can be traced back to 1933, it didn't begin in real earnest until after World War II. It shows no signs of abating. Such names as Aspen, Colo., Alta, Utah, Sun Valley, Ida., Paradise Valley, Wash., Whiteface Mountain in the Adirondacks, and Mt. Mansfield, Vt., are just a few becoming commonplace the nation over. Canada's resorts are booming, too, from Quebec to British Columbia.

Facilities keep improving, and every possible step is taken to keep the slopes open for "addicts." When a snowstorm closed down Squaw Valley, Calif., for example, a .75 mm. cannon was wheeled up to fire eleven rounds at great slabs of snow. They crumbled away to clear the runs.

Work and Skiing. At Aspen in 1958 there took place the first winter session of the Aspen Institute, with executives dividing their time between skiing and seminars in the humanities. At Belknap, N. H., an insurance company sponsored an outing for 400 employees. Such activities spread the appeal of skiing to more people.

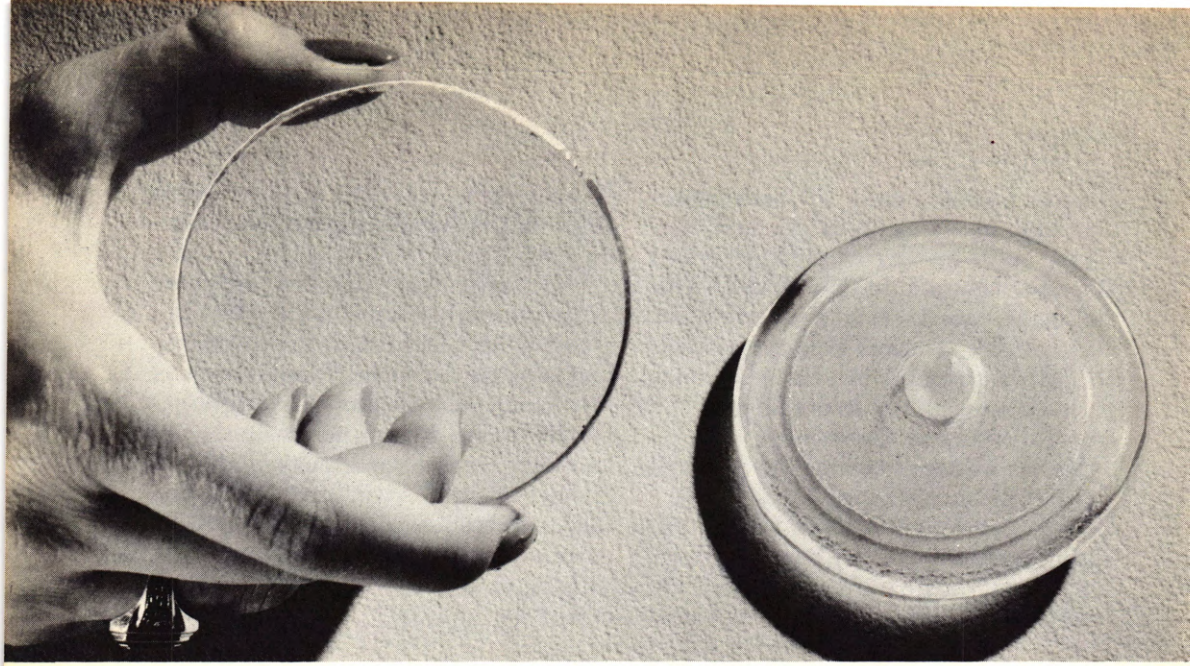
Even more significant in 1958 was the prospect of artificial snow in areas where a poor winter might severely limit the

number of skiing days. In the southern Catskills, in Vermont, N. H. and elsewhere snow-making machinery coated slopes where nature had failed. This technique appears bound to extend the season vastly. There is even the possibility of year-around skiing, for in Germany a plastic snow as well as plastic mats laid on peat were used successfully.

Skiers also began turning to a new and popular technique called wediln. Essentially, this involves a series of running, racing turns on the fall line of a slope. Ski experts predict it will replace the traditional snow-plow turn. More varied ski equipment, too, such as plastic-soled skis with self-lubricating surfaces, is luring enthusiasts.

Skiers are among the most dedicated of sportsmen. "Skiing is not a sport. It is a way of life." This is the simple explanation of Otto Schniebs, famed coach of Dartmouth and St. Lawrence Universities. To careen down a mountain slope is an escape from the workaday world into another sphere of wind and speed and snow and beauty where everything fades away except the sheer abandon of swift, stinging motion. Skiers would have it no other way.

SKIING OVER THE HOUSETOPS, at Mt. Rainier National Park, Washington. There's no lack of snow here, but where snow is unpredictable, a process of making artificial snow from water and compressed air has come into favor.



SYNTHETIC SAPPHIRE disk on the left, of 175 carats, sells for about $175. It is one of many different sizes and shapes, including rods, tubes, and balls, being used by industry and medical science. The boule on the right is the raw material, as produced by the Linde Company.

SYNTHETIC STONES

Man-Made Jewels. Making gold was the dream and desire of generations of medieval alchemists. Today, strange to say, gold is not the most desirable mineral. There seems to be plenty of gold for all practical—and decorative—purposes, and chemists are bent on other objectives. The 20th century has already witnessed the creation in laboratories of diamonds, sapphires, and emeralds. The word "synthetic" used to describe these stones may be confusing to some: it doesn't mean phony or artificial, but something man has built up out of the identical elements found in the natural product. Researchers have now succeeded in producing substances which in certain respects improve on those found in nature.

Why Experiment? The reasons for the search lie in man's desire for knowledge. Further, modern industry has great need of extremely hard substances which can resist high temperatures and high pressures. Such substances are used as abrasives in fashioning tools. They are also used in the manufacture of jet engines to increase the toughness, corrosion-resistance, and high-temperature strength of stainless steel and other alloys. Experimentation was greatly speeded up during World War II when there were difficulties in obtaining the true or natural jewels used in precision instruments.

Industrial Diamonds. The hardest of minerals is the diamond. Low-grade diamonds of poor color and diamond "dust" have long been used industrially, but the need for a cheap, plentiful product stimulated research for a substitute. The General Electric Company, after more than four years of effort, succeeded in creating synthetic diamonds, identical with those dug from the earth. This breakthrough occurred in 1955. Two years later a pilot plant in Detroit was producing industrial diamonds in commercial quantities. Ac-

cording to General Electric, these sell for about $6,000 a pound.

Another man-made substance that has great industrial possibilities because of its hardness is borazon. It is a compound of boron and nitrogen and its crystalline structure is close to that of the diamond. It was produced through the use of pressures of a million pounds per square inch and temperatures of 3,000 degrees Fahrenheit in a container. Borazon allows abrasive wheels to be operated at higher speeds and at higher temperatures than has been possible up to the present. The process for making it is a trade secret.

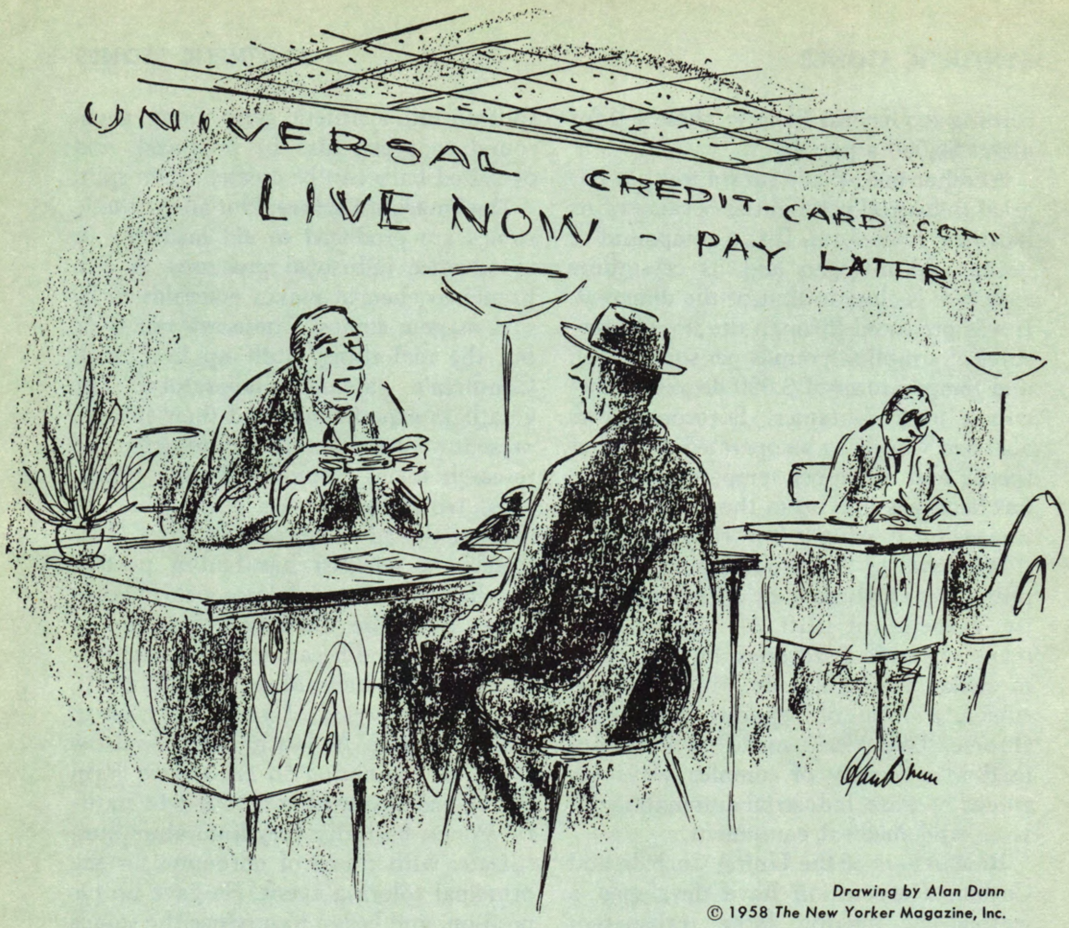
Windows of Sapphire. Synthetic sapphires were first made by a French chemist, Verneuil, in 1910. As happens with many scientific discoveries, he was trying to make something else, in this case, rubies, a form of sapphire containing chrome. Today man-made sapphires are used in a variety of complex ways—in guided missiles, industrial automation devices, and medical equipment.

Researchers of the Union Carbide and Carbon Corporation have developed a method of making large transparent white sapphires, up to three inches in diameter. Only a few hundred have been manufactured so far. Their use in industry and medicine is due to their peculiar property of transmitting infrared rays. Medical men use infrared instruments with synthetic sapphire windows to analyze gases, such as carbon dioxide. These instruments are able to analyze and record the breath of a patient under anesthetic, to tell quickly whether more oxygen should be administered.

Production Difficult. One method of making sapphires starts by dropping fine particles of aluminum oxide onto a small pedestal in a furnace. These droplets solidify as they hit the cooler part of the furnace; as more droplets solidify, crystals build up like stalagmites in a cave. The process creates a ball, which can be split up into synthetic gems. Long, even, round rods can also be produced, and oversized balls can be created, then split.

The Emerald Factory. Not all synthetic stones are produced to aid medicine or to advance industrial processes. A San Francisco chemist makes emeralds to be sold as gem stones. These are not fake, but the real thing, built up in Carroll Chatham's basement laboratory. The Chatham experiments, and their success, present a very different picture from the research teams employed by big industries, which have been responsible for most of the advances on this front. This California scientist has had a passion for chemistry since adolescence. He graduated from the California Institute of Technology and became a research chemist in food products. Meanwhile, at night, over a long period of years, he tried to make emeralds. At last he discovered the secret of combining in crystalline form the chemical ingredients found in natural stones, basically beryllium aluminum silicate, with traces of chromium as the principal coloring agent. He gave up his position, and began to produce the stones in commercial quantities. The secret continues to be his own for he decided not to patent the process and formula. Only his wife has passed through the laboratory door labelled "Control Room—No Admittance." The Chatham emeralds are sold for about one-tenth the price of natural emeralds. Gem experts are often fooled by them.

Underground Nuclear Blasts. Scientists were hopeful that the underground atomic blasts detonated in Nevada in 1958 might produce some new and interesting substances, even gem stones. The results have been disappointing in this respect, although it is too early for full analysis. Gold, however, has been created out of base metal through bombardment in a cyclotron or atomic furnace: its cost is prohibitively high.



Drawing by Alan Dunn
© 1958 The New Yorker Magazine, Inc.

"Then your estate pays for everything in one big bill."

TRENDS

CREDIT CARDS

"Charge It." Those are the bywords of millions of Americans who have become credit card conscious.

A flourish with a credit card serves as a magic wand capable of providing anything from ballet tickets to an African safari, from a rented auto to an airplane trip around the world, from a secretary to dock facilities for a yacht. Want to woo your girlfriend? Credit cards cover such essentials as candy, fruit, flowers, and champagne. You can propose by telephone or cable—and charge it.

Department stores had the idea when they set up charge accounts. And oil companies probably inspired the current credit card rage through the success of their "fill 'er up now, pay later" plans. The oil companies started their cards in a small way in the 1920's. Today, one out of eight motorists has at least one gasoline credit card and most of these

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card holders have credit with more than one company.

Businessmen in many suburban communities besiege new residents with offers of credit cards. The off-balance look of the new suburbanite generally can be traced to a pocketful of "charge it cards." With the trend away from paper or plastic cards toward metal plates and bulky booklets, the sideward list has become increasingly apparent.

More and more firms seized on the credit card idea as word spread that people spend more when they graduate from cash to credit card. Motivational researchers used words like "selective group" and "inexhaustible potency" to explain the popularity of the cards. Less colorful analyses suggested that benefits of ready-made expense account figures when income tax time rolls around outweigh the discomforts of first-of-the-month blues.

National firms with specialized credit facilities and large lists of card holders included the Universal Air Travel Plan; Cruise Clubs, Inc.; Rail Travel Credit Agency; the Hertz Corp.; Avis Rent-a-Car, and Hilton Hotels Corp., which offers a somewhat specialized Carte Blanche.

The major trend and the big business in the credit card confusion is the "all purpose card." The Diners' Club blazed the path beginning in 1950. By 1958, Diners' Club membership was racing toward the million mark and members could "charge it" at more than 17,000 establishments in some 76 countries. Primarily for use in restaurants, the Club has expanded its magical faculties into dozens of other fields.

Diners' Club members pay $5.00 a year to secure the wonder-working cards. Additional cards for relatives or employees cost $2.50. The gravy that whets the appetite of many would-be imitators comes from the seven per cent commission on billings charged to establishments that accept the cards. Diners' Club netted $1.4 million during a recent fiscal year on billings of $91.1 million.

Diners' Club officials have watched the birth and growth of approximately twenty competitors. They licked their chops while the newcomers absorbed one another or dropped out of business. When competitive "charge it" firms reached just the right degree of plumpness, the Diners' Club—appropriately—gobbled them up.

But a new, and probably indigestible, competitor entered the picture in 1958. The American Express Company, with 400 offices scattered throughout the world and assets of $668 million, staked its claim in a big way. It took over the Gourmet Guest Club list of 40,000 members and the American Hotel Association's Universal Travelcard plan. It let loose a high powered drive to win members and provide services. The Diners' Club slugged back by absorbing the 60,000 members of the Sheraton's central credit plan and courting the 800,000 Sheraton guest card holders.

Big American Express selling point is charging tickets for buses, planes, trains, and ships. Cost of membership is $6.00 annually and $3.00 for additional cards. Commissions on billings vary but will average about five per cent.

Capture of Toots Shor's New York restaurant was claimed as a major victory by American Express. Card holders and potential "charge it" enthusiasts faced the enjoyable prospect of watching the titans do battle to establish new credit beachheads.

FOREIGN LANGUAGE BROADCASTS

From Albanian to Zuni. In addition to English, American radio offers entertainment in 40 different languages. About 460 stations in 51 states now devote some of their time to programs in everything from Albanian to Zuni. In Arizona, for in-

stance, one station broadcasts in Apache, Hopi, and Navajo.

Spanish leads by far in foreign broadcasting, and programs in this language have greatly increased in the Southwest, in California, and New York. Five nights a week a New York City station hooks up with a Puerto Rican station for direct broadcasts of island news in Spanish. French, a runner-up, is heard mainly in the Northeast and in Louisiana. A Newark, N.J., station offers programs in Yiddish, Gaelic, Polish, Spanish, Italian, and German. Polish and Italian are heard in many parts of the industrial Midwest.

The Nostalgic Note. The programming is mainly of the disc jockey type, with the emphasis on intimacy. Folk music and stories, along with the news of the day, take up the major portion of the time devoted to foreign language broadcasts. The advertising naturally features favorite national products, such as olive oil and spaghetti on the Italian programs, bamboo sprouts on the Japanese, and so on.

The day of the foreign-language broadcast is probably now at its zenith and will soon head downward. With increasing assimilation of the foreign born, and new immigration kept at a low point, there will be less interest. The programs are now aimed to interest an older generation.

MECHANIZED MAIL

Electronics in the Post Office. The United States Post Office has been run along conservative if not antiquated lines. Few major improvements have been made since the R.F. D. man was motorized early in this century. Meanwhile, the volume of mail has increased and the population has nearly doubled. The average American sends 360 pieces of mail each year. Present methods of handling this constant deluge have been declared obsolete. It has become imperative to modernize the entire system.

An increase in postal rates, voted in 1958, together with increased appropriations over the next few years, will provide funds for carrying out Postmaster General Summerfield's plans. The goal is improved service, which means, ultimately, 24-hour mail delivery between any two points in the country. Service will be speeded up 50 per cent or more. Postal officials warn, however, that mechanization and "production belt" methods will not reduce the postal deficit for many years to come, if ever. For the new machines are very expensive items.

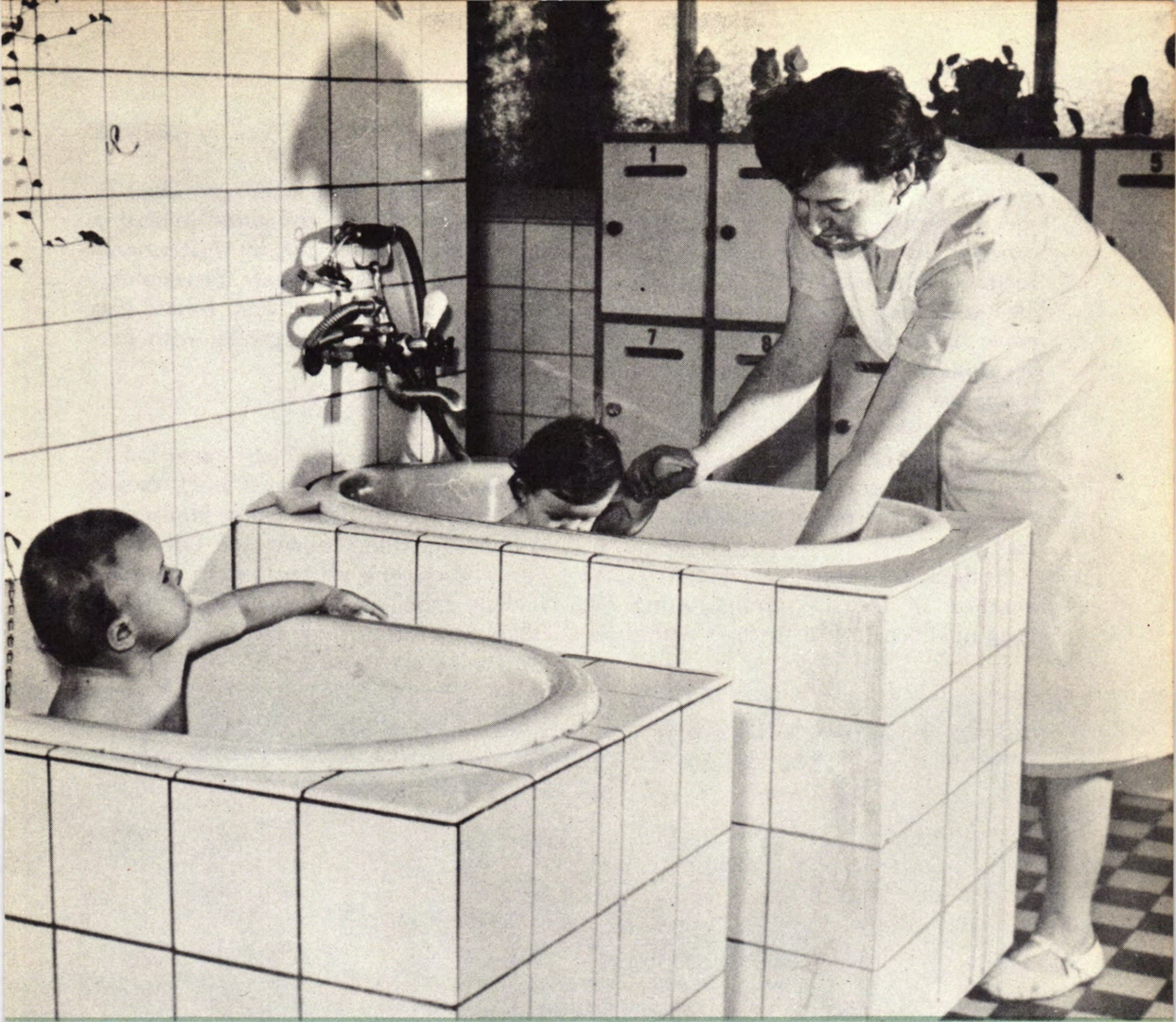
Within a few years various electronic devices will be installed in all the larger city post offices. Some of them are now being tested in metropolitan offices, where the greatest mail congestion occurs between the hours of 5 and 9. Various machines will cull out odd-shaped letters for special handling; they will arrange the rest rightside up and postmark them; then, with some help from an operator, sort them by destination. A maze of conveyor belts will complete this assembly-line operation. In 1958, semi-automatic sorting devices (that can do everything but read) were being tested in Washington and in Silver Spring, Md.

Will the new devices save manpower? The answer is probably yes. But the door-to-door deliveryman will continue his rounds, aided by trucks and carts. The familiar old pouch is still in use. Federal engineers report they cannot improve on its efficient, collapsible features.

PROFIT SHARING

While the heads of most business firms shudder at the term "profit sharing," a small minority believe that profit sharing gives the worker an incentive to produce more, and thus more than balance the outlay.

The profit-sharing trend has grown in the United States from some 750 known



FEW TOURISTS have made their way into Czechoslovakia since the Communists have been in control. Those who have visited this country report that the Communist pattern of life is everywhere apparent. Collective housing, even collective bathing for the young, seems to be a mark of the "workers' republic." These children are being cared for in the day nursery of a collective apartment building, built for the employees of the chemical works at Zaluzi, Czechoslovakia. Instead of 40 bathrooms being awash, only one gets splashed by the young guests.

plans in 1938 to an estimated 20,000 plans in 1958, covering about 2,000,000 workers. Employers sponsoring such plans think that they are one of the answers to Communism. Nobody claims that workers have any inherent right to a share in profits, but if such an arrangement improves morale, eliminates suspicion and animosity between management and labor, it may well be advantageous to everybody, including shareholders.

Reuther's Proposal. Walter Reuther, United Automobile Workers' head, made the headlines early in 1958, by asking for a profit-sharing plan in the auto industry, to be included in new wage demands. At one time most labor unions were against profit-sharing, taking the view that it was an employer's device for getting more work out of employees, and also that it would weaken loyalty to the union. Reuther's trial balloon didn't get off the

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ground. The union found itself, when the time came for negotiating its new contract, in a disadvantageous position. In the case of the UAW, there were indications that the union would try to move in on management and influence decisions. It is well known that the union is against the shutdowns caused by retooling, other expensive changes in getting out new car models, and the tremendous sums spent on advertising. These matters are the prerogatives of management.

At the Commercial Steel Treating Corporation of Detroit, profit-sharing has been in effect for fifteen years with satisfactory results. Luke Miel, president of the concern, was instrumental in setting up a profit-sharing trust, by which a portion of profits was set aside for each employee as a retirement fund, in addition to a split of monthly profits with employees.

HOOP-LA

Millions of Hoops. The newest fad to hit the nation, the plastic hoop, racked up sales of about 16 million by November. All through the summer and fall, every yard, beach, and playground in the land had its quota of frenzied hoop-whirlers. The craze originated in Australia, and

BENEDICTINE SISTER, at Christ King Convent, Oklahoma City, gets plenty of encouragement as she gives the hula hoop a whirl. Hoop whirling was 1958's biggest play fad.

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was introduced into the United States by the two enterprising young men who head the Wham-O Manufacturing Company in Los Angeles. Hoops rolled eastward, gaining momentum in popularity. They were the hottest thing to hit the toy business in years.

The device, a mere length of stiff, polyethylene tubing stapled to form a circle, wasn't complicated enough to rate a patent. Some forty manufacturers soon were making and marketing hoops under various trademarks—"Hula-Hoop," "Hoop-de-do," and "Spin-a-hoop." They varied in diameter from one to three feet and the prices ranged from 79 cents to $1.98.

Whirling and Hurling. The hoops were whirled about the body, hurled through the air, jumped through, used in water sports — everything but rolled. Mainly they were made to revolve rapidly about the torso, without the use of hands. Good exercise? Maybe, for the young and agile, but for oldsters hoop-and-torso whirling resulted in slipped discs and other aches and pains.

The summer of 1958 witnessed a number of contests in hoop whirling. While girls usually did better than boys at this primitive pastime, it was a ten-year-old boy of Union N.J., who won an endurance test by keeping his hoop whirling for 3,000 revolutions.

UNSEEN EARS

Candid Recordings. Ever since the development of the tiny tape and wire recorders, privacy has been menaced. The possessor of such a device has a dangerous weapon at his disposal, one made to order for the blackmailer or mischief maker. A few years ago a popular peephole type of radio interview program consisted of candid recordings of what people said in unguarded moments, when pressed by impertinent questioning, or in the midst of embarrassng predicaments contrived by the "reporter."

For Better Business? Clearly, the almost invisible recorders have a potential for both good and evil. Secret recordings are a relatively new device in the world of professional espionage, and an even newer one in the business world. Until very recently, in business circles, they were regarded as suspect, barely respectable. But their use increases.

Lately, law enforcement officers have used recorders to check on companies and salesmen suspected of making phony promises, or misrepresenting the merchandise they were selling. For instance, the too-slick salesman for an auto dealer may let his desire to make a sale get the better of judgment and fact. When such promises are recorded, and played back to the seller, the evidence is irrefutable. These cases rarely come to court.

Business espionage is rife today, not only between buyer and seller, but between rival and highly competitive enterprises. This is especially true in the cosmetic and garment fields, where pricing policies and new models are so important.

The tiny recorders are also being used in labor negotiations, and are sometimes planted in rooms where the strategists are conferring.

Some newspapers and magazines allow their reporters to use recorders when interviewing celebrities. Others look with disfavor on their use.

The devices are so easy to use that almost anyone can become an amateur detective. They can be concealed in a pocket or in a brief case. One of the smallest recorders now in use is the made-in-Germany Minifon, which sells for $290. It measures three and seven-eighths by six and five-eighths and one and three-eighths inches and weighs 28 ounces. It records 20 minutes of conversation on a wire spool, and picks up sounds as far away as 20 feet. It replays through a combination speaker mike or through

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earphones that look like a doctor's steth-escope. The sound can be "erased" and the wire or tape used an indefinite number of times. Other recorders are slightly larger. Some record conversations 16 feet away. One manufacturer stated that 10,000 of his machines are in use.

Some states are trying to devise laws against the indiscriminate use of these recording devices since they lend themselves so easily to unethical practices.

Instead of Letters. One of the pleasanter uses to which the recorder has been put was the way a Westinghouse official kept in touch with his daughter who was on a round-the-world trip. She recorded her impressions and experiences when they were fresh at the end of the day and mailed the tape back instead of letters.

MOTOR SCOOTERS

In the past two years scooters have become so popular that local officials as well as state legislatures have begun to take action to control their operation. Numerous fatalities have pointed up the fact that the motor scooter is a death-dealing vehicle. In the hands of a reckless and untrained youngster it is definitely a menace to life and limb. Home-made scooters are especially dangerous since they conform to no general standards as to speed, brakes, etc. Moreover, they are likely to be operated in crowded suburban areas where many children are at play. New York and other states require the driver of any type of motor scooter to have an automobile license, or to pass a special test within certain limits and under specific controls.

Twenty-five years ago: President Roosevelt recognized the Soviet Union as the government of Russia, 16 years after the Russian Revolution, and an exchange of ambassadors followed.

Yet the scooter is recommended as a quick and economical method of transportation for adults. A small two-seated, two-wheeled scooter ranges in price from about $250 to $475. It gives 65 to 130 miles on a gallon of fuel, at a cost of from half to three-quarters of a cent. The cost of repairs is very low. Scooters are banned from many parkways and throughways as being unsafe in high-speed traffic, with a tendency to skid on wet streets. They offer no protection from rain and snow, but on the byroads, in good weather, their owners find them completely satisfactory.

The scooter is a close relative of the motorcycle. It has a smaller engine and smaller wheels. Motorcycles usually have a four-stroke engine, while most scooters have a two-stroke, one-cylinder engine that uses a mixture of gas and oil, just like an outboard motor. A scooter's highest speed is about 75—although 30 is more comfortable for the driver. Most scooters do not have the center bar for the driver to straddle. This makes falling off less complicated. As a matter of fact, since the scooter's center of gravity is low, upsets are infrequent.

More than two million scooters are in use in Europe, where their low cost of operation makes them a very practical form of transportation. The Italian-made Vespa and Lambretta brands at first almost monopolized the American market. German, Japanese and United States manufacturers are now in the field. Scooter sales are heaviest in the South and in California. Some cities now have sales and service stations which handle only scooters. There are scooter clubs, races, outings,—and even a magazine devoted to scootering.

TRIPS AND TRAVEL

Boom in Foreign Travel. In spite of higher costs, in spite of war scares and recession, it was plain early in the year that 1958 was going to be a boom year for foreign travel. The international airlines reported in the spring that reservations were up from 19 to 42 per cent over 1957. Representatives of 28 steamship lines reported an average 23 per cent increase in business over 1957 in the first quarter of the year—and 1957 had broken a 27-year record. Air travel gained over ships, although the latter were booked solid during the summer months.

International drivers' licenses were issued in vast numbers. Through the American Automobile Association and many travel agencies, tourists made arrangements to buy or rent a car abroad. Car-hire rates for self-operation are reasonable, and European cars are built for European road conditions. The price of gas, at two or three times what it is in the United States, shocks Americans, yet

ISLAND OF HYDRA, near the southeastern coast of Greece, is one of that country's many sun-drenched and legend-encrusted islands.

BYZANTINE CHURCH on the Greek island of Rhodes, once famous for its gigantic statue, the Colossus of Rhodes.

motoring proves an inexpensive way of traveling for families or groups of friends. Automobile travel in France, England, and Scotland is especially pleasant. Roads and road service are good, inns and overnight stops carefully rated in the guide book. The British custom of driving on the left side of the road is likely to bother the American driver for the first day or two.

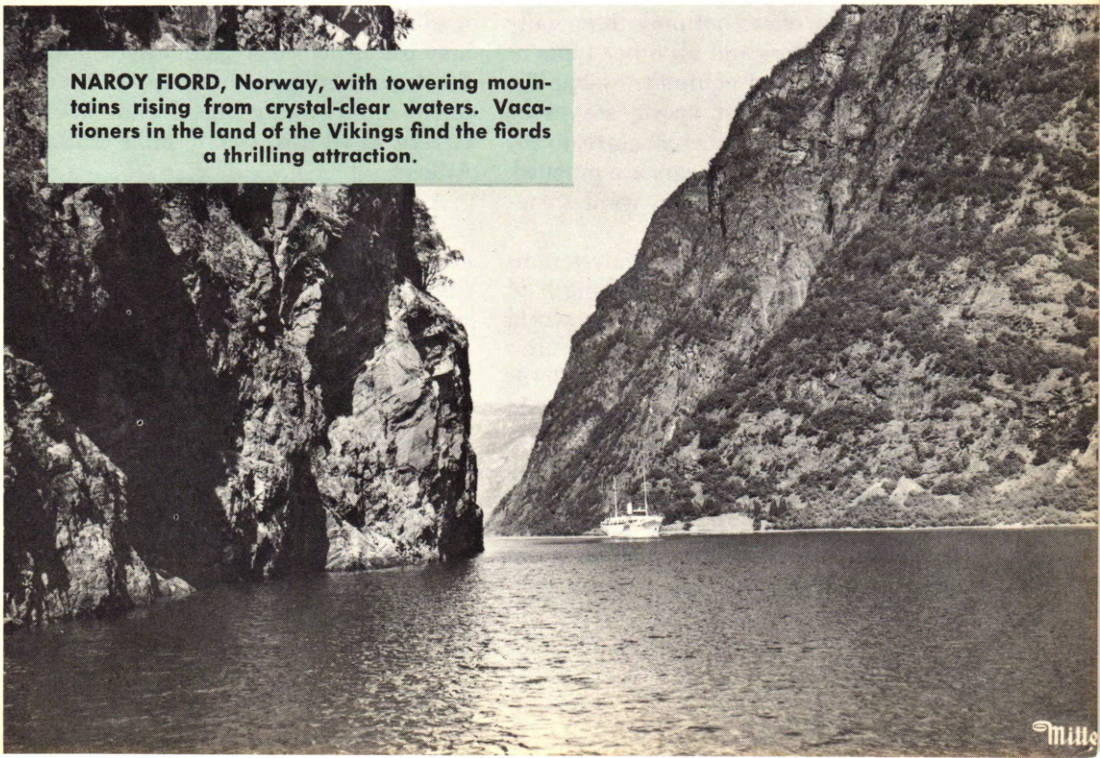
Chartered Flights. Many groups and organizations cut expenses for a European trip by chartering a plane. Some companies arranged chartered flights to give their employees an inexpensive holiday in Europe. Nationality groups, such as Italian-American societies, also followed this plan. Many persons took advantage of "pay later" schemes to finance a trip. It began to look as if going abroad

had become a social status symbol which everybody wanted.

Orient and Iron Curtain. Americans have also been heading across the Pacific. In 1958 between six and seven hundred thousand visited Japan, and were given a cordial welcome in a land new in the field of tourism. Sixty per cent of Japan's tourists are Americans. Buddhist shrines, the ancient capital of Kyoto, fascinating small shops, and incomparable gardens make Japan a very different place to visit. During the year the number of tourists visiting the U.S.S.R. was double that for 1957. Planned tours, arranged by the Soviet Travel agency, Intourist, and by the American Express Company, handled the bulk of these visitors. Intourist has 400 interpreter guides. Points of interest in Moscow were visited, also farms and factories, the Black Sea resorts and Kiev, and there were boat trips on the Volga. Some automobile routes are being opened up for the first time in the Soviet Union, but they are still hazardous.

Others who wanted to leave the beaten

MOTORISTS can reach the top of the world, following the hairpin turns on the Trollstig road in West Norway.



NAROY FIORD, Norway, with towering mountains rising from crystal-clear waters. Vacationers in the land of the Vikings find the fiords a thrilling attraction.

TRIPS AND TRAVEL

track found relaxation and enjoyment in the countries at Europe's geographical extremes—they went to the Scandinavian countries, or to the Eastern Mediterranean to visit Israel and Greece.

Norway. In the past most Europe-bound tourists have overlooked this fascinating land. Norway offers many attractions, one of which is that it is not congested with sightseers. Among other things that make a Norwegian holiday rewarding are its unspoiled natural beauties, and its friendly people with their rich cultural heritage.

During the summer and fall there are many festivals and fairs in Norway. Chief in importance is the International Music Festival held in the beautiful old town of Bergen. Concert artists from all over the world come to Bergen to participate in a series of fine performances. Another event of great interest is the Scandinavian Design Cavalcade, which occurs in the fall. Norway has a deservedly high reputation in the field of the applied arts—ceramics, silver, furniture, hand-woven and other types of original textiles. Shopping in Norway is a rare delight for women tourists. For the adventurous male, Norway offers not only those gaily patterned sweaters and all other types of sports clothing and equipment—but the sports as well. Water sports are to be enjoyed nearly everywhere. Safaris to the far north, where polar bears are pursued, are available for those who want something really unusual.

Norway's fjords, those deep mysterious inlets which indent the entire length of the coast, are declared by many world travelers to be the loveliest of nature's creations. Beyond and between the fjords are stern snow-capped mountains, wild but fruitful valleys, and glittering glaciers. The sight and scent of blossoming fruit trees with glaciers for a backdrop is one of Norway's unique attractions. Norwegian hotels, hostels, and inns are pleasantly informal. Oslo, the Viking capital, is a modern city, with splendid architecture, fine museums, and parks. Within the past few years, Norway has set up attractive camps for the children of foreign visitors. While traveling in Norway or in other countries, tourists can park their children in these summer camps, knowing that they will have a wonderful—and instructive—holiday.

Greece. At the opposite end of Europe from Norway is Greece, with its face turned toward Asia. For teachers and others interested in history, in classical art or archaeology, Greece has always been a desired goal. Thanks to the efforts of the Greek government to make traveling easy and comfortable, many more tourists are today including Greece. Reports of returned travelers are uniformly enthusiastic.

Greece is indeed a rare travel bargain. Hotel and pension rates are lower here than in most European countries. A visit of a week or ten days may add $250-$300 to the cost of a European trip that takes one as far as Italy. Flying from Rome or Naples to Athens is the quick, comfortable way of getting there. With accommodations arranged for in advance, one may use Athens as headquarters, and see the legend-enshrined places on a series of one and two-day trips, for the heart of Greece is within a sixty-mile radius of Athens.

A two-day trip to the Peloponnese will include Corinth, Argos, Tiryns, Mycenae, and Nauplia. A two-day trip to Delphi that takes one past Mt. Parnassus, with side trips to ancient monasteries, is full of interest. Athens itself calls for several days of exploration, with hours spent at the National Museum and the Byzantine Museum, in the shops and markets. The Acropolis, so far as the record goes, is one sight that has never disappointed anyone. Now the newly-restored agora at its base is an added point of interest.

ENGLAND'S PRIDE in its past has led it to preserve its ancient castles and stately country homes. They are considered a part of the national treasure and most of them are open to the public on certain days for a small admission fee. Above, beautiful Bodiam Castle, in Sussex, stands intact behind its moat. It was built in the 14th century to withstand the onslaught of the French.

VISITORS TO NEW YORK CITY in 1958 wanted to see one of Fifth Avenue's new attractions: the museum designed by Frank Lloyd Wright. Original, even spectacular, in outline, it provides plenty of interior space and excellent lighting for the viewing of the Guggenheim collection of modern art.

If the tourist can arrange his visit to coincide with the performance of classical plays presented in Athens and at Epidauris, he will have memories that last a lifetime. Also seasonal are the island cruises. These, and a trip to Crete and the palace of Knossos, are for people who have more time to spend. Thessaly, in the north, is also for those who wish to explore farther afield, or to learn something about the reclamation projects for which U. S. aid has been primarily responsible. The results have been so gratifying, and the Greek people so appreciative, that such a trip to one of these irrigation or reclamation projects is well worth while.

The Typewriter Evolves

LIFE WITHOUT TYPEWRITERS is hard to imagine, yet Remington's first commercial model was offered for sale less than a century ago.

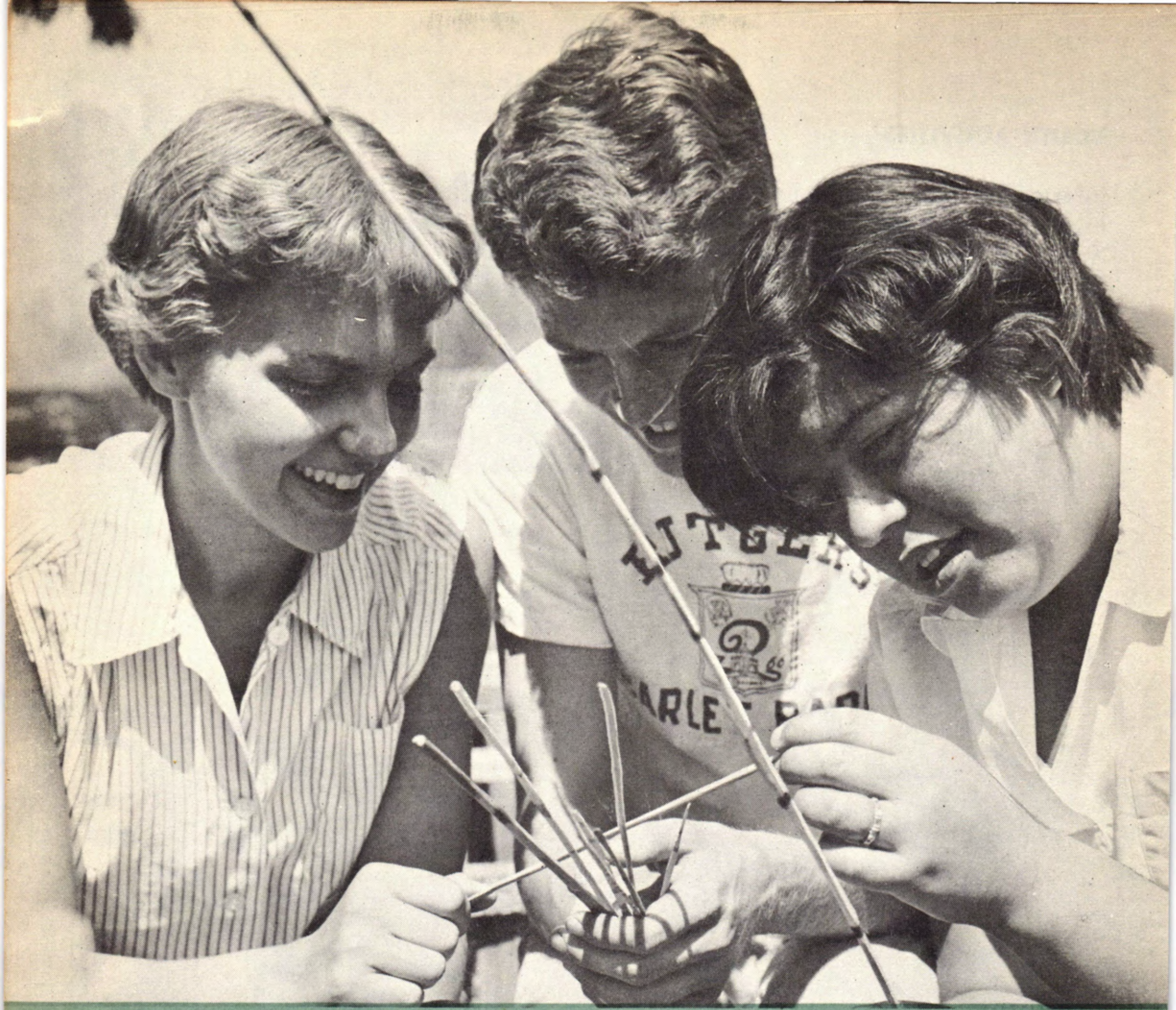
THE FOOT PEDAL of this Remington No. 1 model had to be pressed to return the carriage.

A MUSIC-WRITING TYPEWRITER, above, was invented and placed on the market several years ago. Its inventor was Cecil Effinger, of the University of Colorado. Right, a new Remington-Rand machine with Arabic keyboard.

UNITED NATIONS

Stabilizing Force. While 1958 was not a year of outstanding achievements at the United Nations, the world body served usefully as a stabilizing force and as a world forum. The mere protracted discussion of certain aspects of the international scene, even the bitter accusations and name-calling among the various delegations, served to lessen tensions. But the record was not all one of speech-making. Useful action was taken, for instance, in Lebanon (dealt with in detail in the article, MIDEAST) where the presence of the U.N. observation team helped to normalize the situation. Dag Hammarskjold, tireless secretary general, made many trips to the area to confer with leaders and with the Lebanon observation team as well as the truce supervision teams operating on the Israeli-Jordanian border. Hammarskjold also offered to take part as a mediator in a summit meeting

JAVANESE MOTHER gratefully watches nurse attend her child at a health clinic equipped by UNICEF.



WORK CAMPERS get acquainted with a Hupa Indian girl who explains the use of sticks for beating out dance rhythms.

SCHOOL AFFILIATION SERVICE

Toward International Friendship. Under the name of School Affiliation Service, a movement has been developing which tends to broaden the horizons and the sympathies of the young people who are participating in it.

This movement was started soon after the close of World War II, when Dr. Alfred E. Stearn, headmaster emeritus of Phillips Academy, got the idea that schools in the United States should send aid, chiefly books and clothing, to schools in war-devastated parts of Europe. The project, he reasoned, would help American students understand some of the problems of war-stricken areas. Much material was collected by students and sent overseas to specific schools. This charitable enterprise opened up new vistas of intercultural education. As letters from pupils began to fly back and forth across the ocean, a much larger program began to grow. The American Friends Service Committee, with its long experience in peaceful international co-operation, was asked to take charge. Today, School Affiliation Service involves not only letters but cultural and personal exchanges as well.

How the Plan Works. A representative

information about junior hospital aides have come from 46 states, Puerto Rico, Australia, Hawaii, Israel, and Canada. Each similar project that is set up is on its own, but basic outline material and also uniforms may be obtained from the original unit in East Orange.

VOCATIONAL SCHOOL students at New City, rural New York state, built a schoolhouse, complete with plumbing and airconditioning, for the county's handicapped children.

hospital aides perform do not include personal service to patients except, occasionally, feeding a patient. They are confined to the many minor chores that nurses have little time for—delivering mail and messages, wheeling bookcarts, opening flower boxes and caring for flowers and plants, serving afternoon snacks, reading to patients. Sterilization of equip-

CANDYSTRIPERS are Junior Hospital Aides, and these two are cleaning slides and equipment in a hospital laboratory.

YOUTH ACTIVITIES

JUNIOR HOSPITAL AIDES

Girls in Uniform. This constructive project originated with Miss Ruth E. Lindsay, a teacher in the East Orange Junior High School in 1944. The idea soon spread to many other parts of the country where it has taken firm root. The original enterprise, undertaken jointly by the school and the East Orange General Hospital, was planned as a service project for the community. Through the years the successive groups of girls involved in it have piled up a total of over 54,000 hours of volunteer floor duty at the hospital.

Those who wish to take part in this activity must, first of all, have their parents' consent; they volunteer for a certain number of hours weekly, and receive the necessary training at the hospital. An instructional booklet has been prepared for their use. Individual reports are kept on the quality of service they render, and a system of award badges has been devised, based on length of service. The service periods are from 3:30 to 6:00 p.m. daily and on Saturday morning.

A Variety of Tasks. The duties junior ment and similar chores in the hospital's laboratory, work in the linen room and record room are other lines of activity. This is all real and valuable service.

Junior hospital aides wear crisp pink-and-white striped chambray pinafores over white blouses, a uniform that has given them the name of "candystripers." Their fresh young faces and eagerness to serve are a joy to patients. They are especially popular in children's wards.

What It Means. From the girls' point of view, the experience and training is useful to them as future wives and mothers. Moreover, they are in a responsible, adult situation for perhaps the first time. They get an insight into the operation of a large institution and its place in the community. Contact with the medical, nursing, and x-ray professions gives them an opportunity of finding out whether any of these is a line of work in which they would be happy. The experience is also important in character formation. The habits of courtesy, control, discretion, and quiet efficiency, quickly formed in this situation, leave lasting effects on the character.

Miss Lindsay reports that requests for

Distinction

HELENA RUBINSTEIN, of Polish birth and one of a large family of daughters, went to Australia as a young woman and there began her fabulous career as the creator of aids to feminine beauty. Following her initial success, she soon transferred her activities to London, Paris, and, later, to New York. With diligence and acumen she has built up a highly profitable international business. Madame Rubinstein has a passionate and genuine interest in art and her taste and judgment in this field are considered excellent. Her collection ranges from African sculpture and pre-Columbian Indian art to the latest abstractions, and the works of such masters as Matisse, Picasso, and Renoir. Her portrait has been painted by about a dozen modern artists. Unknown artists have been helped by her patronage.

MRS. AGNES CHASE, 89, received her first degree, an honorary Doctor of Science degree, from the University of Illinois in June, 1958. Behind this recognition lies a long lifetime of scholarly and artistic labors which made Mrs. Chase one of the world's foremost authorities on grass plants. She began as an artist sketching grasses in the Field Museum, Chicago. In 1903 she took a Civil Service examination and went to Washington as an artist in the Department of Agriculture. Later she was transferred to the Smithsonian Institution, where she has remained, drawing and describing grasses and cataloging grass-type specimens. She has written more than 50 field books on studies of the grasses of Europe and the Americas. Although she officially retired at 70, Mrs. Chase continued on at the Smithsonian without pay and is currently at work on Brazilian grasses.

Women of

MISS CHLOE GIFFORD is the first professional woman and the first unmarried woman to head the General Federation of Women's Clubs. She has been given leave from the University of Kentucky for the two years of her administration. Miss Gifford aims at a twofold program: she wants the women's clubs of the country to make their weight felt in all constructive community affairs; she also hopes to mobilize woman power behind certain international questions, such as support of the United Nations, help for underdeveloped areas, and disarmament. In study groups, she thinks women should study issues rather than countries. Deploring compulsory retirement, she declares: "We may find ourselves always dealing with the inexperienced in a continuing learning process, pushing out people who have skills and ability it has taken years to acquire."

PAULINE FREDERICK, NBC News' United Nations correspondent, finds that crises are routine business. She has covered the Korean, Suez, Hungarian, and Middle East flare-ups for radio and television. Miss Frederick has been a foreign correspondent in Europe, India, and China. Her clear and intelligent broadcasts of United Nations activities for NBC have made her known to a nation-wide audience. She is in demand as a lecturer. Among the recent honors conferred upon her were the George Foster Peabody Award for her contribution to international understanding and *Radio Daily*'s All American Award as "Woman of the Year." Miss Frederick is a graduate of American University, where she majored in political science, and is the recipient of an honorary degree from that institution.

WILDERNESS AND SEASHORE

since these afford refuge for many interesting kinds of birds and animals.

Cape Hatteras. The first National Seashore Recreational Area was established at Cape Hatteras, N.C., in 1953, and formally dedicated in April, 1958. Cape Hatteras is a long sliver, composed of three barrier islands, largely sand, lying between the foaming, pounding Atlantic surf and broad, shallow Pimlico Sound. It is ideal for swimming, fishing, and sailing. The land area, comprising 45 square miles of beachland, is being preserved as a primitive wilderness, with campgrounds for visitors. Included withing the natural boundaries of the area are eight villages, where tourists can be accommodated. Cape Hatteras is very popular with fishermen, for some type of fishing is to be had here almost the year round. It is also attractive to bird lovers. The Pea Island Wildlife Refuge lies about midway of the length of the area. Hunting is allowed in certain sections. Among the trees are holly, live oak, and pine. Cape Hatteras is a historic site, for it was nearby that the first English colony in America was attempted on Roanoke Island. A few miles to the north, on Kitty Hawk Bay, the Wright Brothers experimented in 1903 with their power-driven airplane. This is now the site of a National Memorial. Cape Hatteras, with its mild climate, its vast panoramas of sand, sea, and sky, is perfect for persons in search of a peaceful and tranquil vacation.

GRASS PLANTING, dune buildup, and secondary fencing combine to give storm protection at Cape Hatteras Seashore Area.

DELABARRE GLACIER, Olympic National Park, in the state of Washington, is part of the national heritage of unspoiled beauty.

ation area (Cape Hatteras), and 27 State seashores. More than half of the 240 miles is contained in the Acadia, Everglades and Hatteras areas. Neither of the National Parks contains much beach frontage suitable for seashore recreation.

In addition, there are eight national wildlife refuges, plus a few small keys and islands. A few counties and municipalities operate their own public beaches in the seashore areas.

Looking to the Future. The survey reported on 54 available areas, comprising about 640 miles of beach considered suitable for public recreation use. They constitute the major remaining areas.

Three of these are of special interest. Cumberland Island, off the coast of Georgia, is separated from the mainland by stretches of marsh and estuaries. Its exceptionally attractive shorelines are backed by palmettos. Its dunes are splendid, the ocean waters are warm. The interior has fresh-water ponds as well as magnificent forests of live oak. There is a variety of sea and shore birds, fish, and land animals. Fire Island, a sand reef off the south shore of Long Island, and Cape Cod's Great Beach are two other highly desirable areas, each with its own attractions. The National Park Service recommended that the Federal government acquire these and other sites before it is too late. It also recommended that in most cases, stretches of hinterland be acquired at the same time as the beach properties,

YOSEMITE PARK visitors on a bird walk with a park naturalist.

of money from leasing parts of this territory.

The Vanishing Shoreline. The preservation of seashore areas is a National Park Service project about which people are not well informed. Safeguarding what is left of beautiful stretches of seashore is as important as saving the forest and wilderness areas. In 1935 the National Park Service made a survey of the Atlantic and Gulf shoreline, all 3,700 miles of it. At this time there were many unspoiled, accessible seashore areas suitable for public recreation. The report recommended that 12 major strips be acquired and preserved. Regrettably, only one of the twelve was made into a National Seashore area.

In 1954, private funds were provided for making another thorough survey of Atlantic and Gulf coastlines. The facts brought to light were alarming. Whereas a generation ago there were vast stretches of undeveloped beach, today a great part of the attractive seashores from Maine to Mexico have been taken over by commercial and private development. Many types of enterprise, including oil wells and mining operations, keep long stretches of beach from public use. The Army, Navy, and Air Force have acquired coastal lands for military purposes. Extensive and costly recreation developments, marked by amusement concessions, billboards, parking lots, hotdog stands, and cabanas, crowd every inch of many once-attractive shore areas, adjacent to large cities.

Of the 3,700 miles of general shoreline, only $6\frac{1}{2}$ per cent, or 240 miles, are today in Federal and State ownership for public recreation uses. These 240 miles include two national parks (Acadia and Everglades), one national seashore recre-

CAPE HATTERAS, new National Seashore Area, designed to protect the vanishing American shoreline.

The wilderness areas, in addition to serving the recreation needs of a few, may be considered as a sort of national buried treasure—one that shouldn't be tapped in our time. Unlike the national parks, with their good roads, hotels, gas stations, and other service facilities, the wilderness is not for the many. Invading it requires more money, equipment, and time, generally speaking, than visiting the national parks. Sleeping equipment and food must be toted along. Pack animals as well as a guide may be needed. But despite these hindrances, in 1955 there were 462,000 visitors to wilderness areas.

Wilderness Legislation. The so-called wilderness areas, comprising about 14 million acres in some 79 areas, were in the news in 1958. Commercial enterprise has been making efforts to acquire rights to move in to develop water power and explore for oil and minerals. Therefore, it became advisable to define the areas more specifically than in the past and restrict the uses to which they could be put. For many years legislation to this end has been the aim of a group of Senators and Congressmen as well as the civilian conservation societies—including the Wilderness Society. The law passed excludes roads and other improvements, but leaves the public free to hunt and fish in certain places.

Four Corners. One famous area is known as "Four Corners," for here the states of Colorado, Utah, Arizona, and New Mexico come together. This is a splendid wilderness of mountain, forest, and stream, with great attractions as a vacation spot for those who can rough it. Four Corners has been one of the contested grounds, where private enterprise would like to take over. In addition to beauty, it has great potentialities for oil and gas. In fact, in the recent past the Ute Mountain tribe of Indians living in the region has been realizing large sums

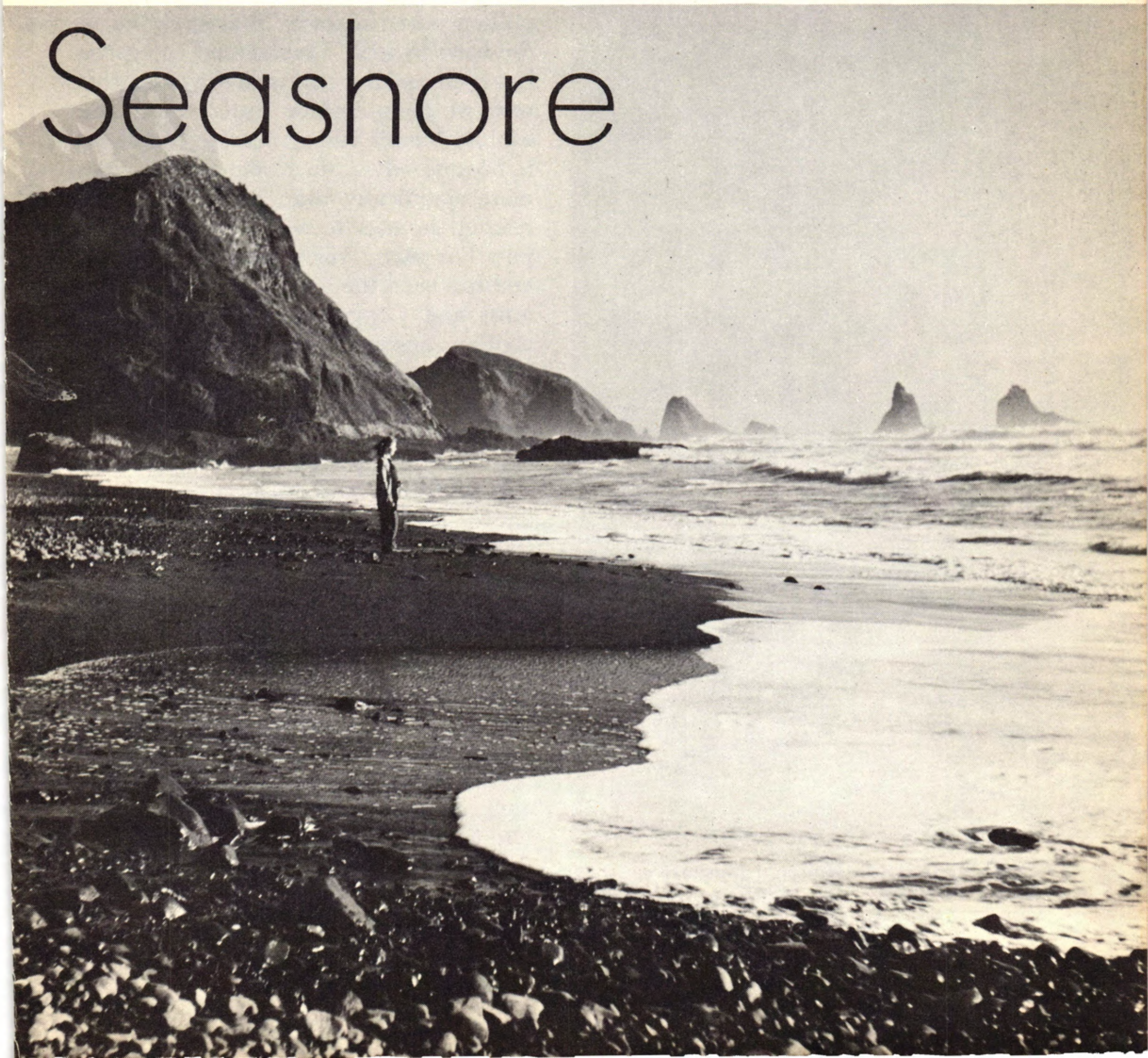
WILDERNESS AND SEASHORE

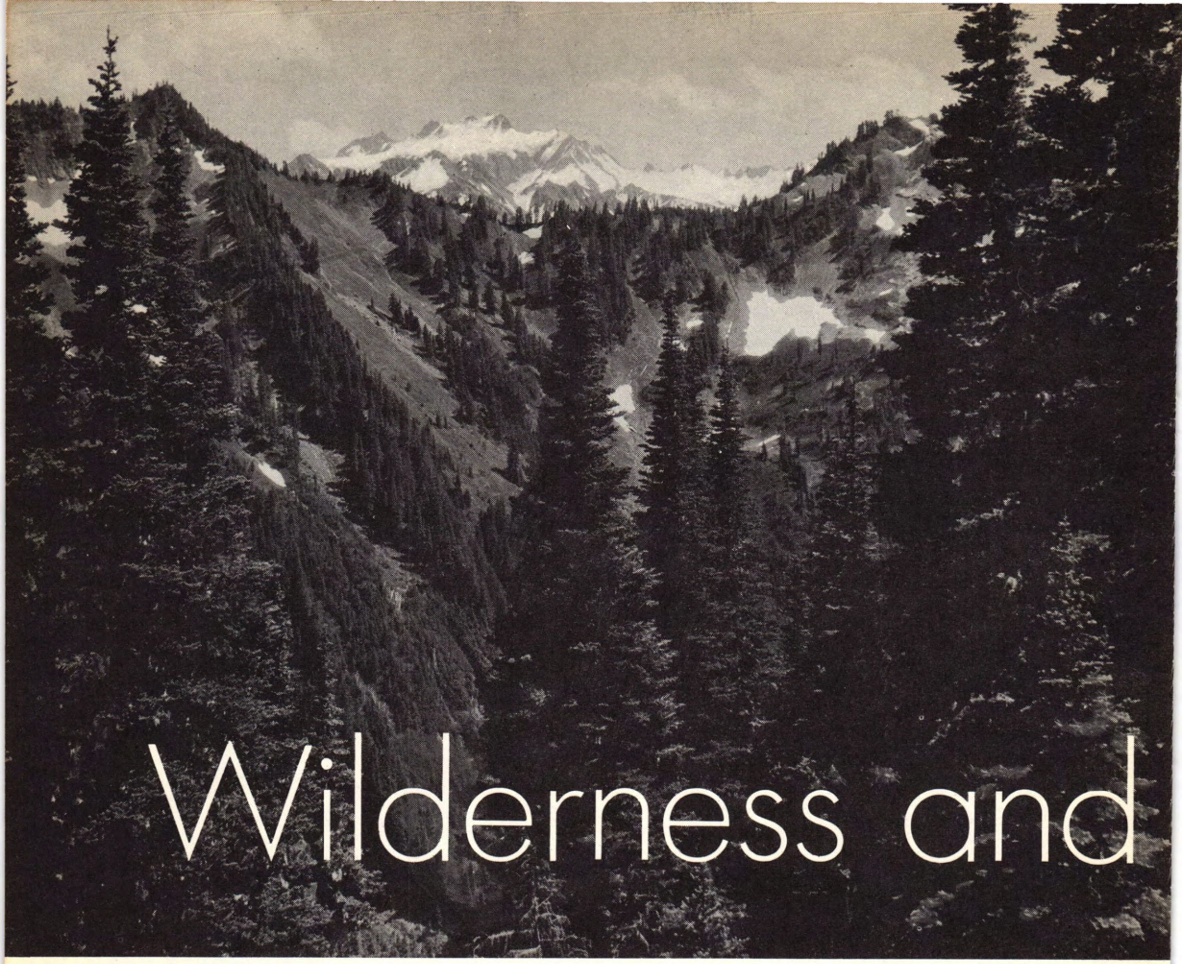
flood control—are in the Department of the Army. This scattered set-up does not contribute to efficient management. Although the first Hoover report made far-reaching suggestions for consolidating and reorganizing the various arms of government concerned with the control and use of public lands, these proposals still await action.

Wilderness Areas. Many Americans, including naturalists, conservationists, and writers, have worked to preserve certain parts of the public lands, mainly within the national forests, free from the march of progress, untouched by civilization. Among these have been Henry Thoreau, John Muir, Gifford Pinchot, and Theodore Roosevelt. Mainly in rugged and inaccessible parts of the country, these areas are unique and should be safeguarded, it has been argued, for the enjoyment of future generations. They represent the old wild frontier, dangerous and also magnificent, the virgin land as it was when the first courageous pioneers undertook to explore it by canoe and on foot, never knowing what was beyond the next bend of the river or over the next hill.

ROCKY PACIFIC SHORE, Tillamook County, Oregon, which the Government aims to preserve from exploitation.

Seashore





Wilderness and

MT. OLYMPUS, Olympic National Park, in the northwest part of Washington, offers glorious scenery along with riding, hiking, camping, and winter sports.

Landed Proprietor. The United States government plays a many-sided role in the public lands picture, and often the left hand is unaware of what the right is doing. In view of the immensity of these land holdings confusion can scarcely be avoided. The government controls about 24 per cent of the country's total land area; in eleven Western states, 54 per cent of the land is government-owned; in Nevada, 88 per cent of the land is government-owned. The natural resources of this vast area account for about 9 per cent of the gross national product. Even greater revenues are in prospect. With their vast forests, valuable minerals, and facilities for water and electric power development, the public lands form a rich national heritage.

Policies. As proprietor, the government is concerned in such varied activities as the management of forests, soil erosion, prevention of fire and flood; in irrigation and other ways of increasing land productivity; in the preservation of fish, game, and birdlife, in the maintenance of National Parks, Monuments and Seashore Areas. These functions are spread over a number of agencies. The National Park Service, the Bureau of Land Reclamation, the Bureau of Land Management, are in the Department of the Interior. The Forest Service and the Soil Conservation Service are in the Department of Agriculture. In addition, the civil functions of the Corps of Engineers—mainly

NORMAN MANLEY, Jamaican prime minister, advised West Indians not to emigrate to Britain until there were more jobs available.

emigrate to the more prosperous islands. Improving the living standards of the people of the outer islands is a main goal of government leaders.

Some General Aspects. The people speak a soft musical English, and their manners are marked by naturalness and dignity. Although the Church of England is stronger than any other, many faiths are represented on the islands and there is complete religious tolerance. A member of an Evangelical sect, William Wilberforce, was mainly responsible for the agitation which led to the abolition of slavery in these British colonies. This occurred some 30 years before Lincoln's Emancipation Proclamation. Today, slavery, pirates, buried treasure have had their day in the Caribbean, and a fresh page of history opens.

destroyers. The United States claims that the base is necessary for the defense of the Panama Canal. The West Indian view is that missile warfare has made a naval base as out-of-date as the destroyers for which it was traded. Even if another site were offered elsewhere, the United States does not want to give up Chaguaramas.

Twenty-one miles north of Trinidad lies the small island of Tobago, which has been administered with Trinidad.The principal goods shipped from Tobago are copra, cocoa, livestock, coconut oil, and coconut fiber.

Jamaica. Jamaica is the largest of the islands included in the Federation, and was the first to achieve internal self-government. Every year it welcomes thousands of tourists from the United States, whose citizens appreciate the amount of high-quality, duty-free European and native merchandise they can carry away. Last year tourism ranked only second to the sugar industry, reaping $22,000,000 in revenue. Jamaica is seeking new industries to create more employment, and thus check the emigration of the unemployed to Great Britain.

Jamaica, like Trinidad, was discovered by Columbus. It remained in the possession of Spain until 1655, when it was taken by the British. The Cayman, Turks, and Caicos Islands are dependencies of Jamaica. Principal exports are sugar, bananas, rum, coffee, cocoa beans, pimento, and fruit juices. Bauxite ore is mined in Jamaica. Racially, the population is predominantly black, with small percentages of whites, East Indians, and Chinese.

Leeward and Windward Islands. Included in the Federation is the scattered group of small, under-populated islands lying north of Trinidad—St. Christopher (Kitts), Nevis (where Alexander Hamilton was born), Anguilla, Dominica, St. Vincent, Grenada, St. Lucia, Antigua, and Barbadoes. These are the poorer members of the Federation, economically speaking. Each one has its own scenic charms—charms that have not yet been discovered by too many travelers. All offer a mild climate, restful atmosphere, and natural beauties said to rival those of the South Sea Islands. De luxe hotels are absent, as well as neon signs, nightclubs, and gambling casinos. These delightful islands are hemmed in by white beaches and crystal clear water for swimming and sailing. Some have volcanic peaks and lush tropical forests. Visitors and natives fish for bonita, snapper, mackerel, kingfish, and butterfish, or dig for clams and crawfish. In season, there is horse-racing and hunting. Living costs are extremely low. Antigua, with very little rainfall, is said to offer a favorable climate to sufferers from arthritis and hay fever. For those who want to enjoy what has been called the "American Mediterranean," several airlines offer island-hopping tours, and there are also many cruises into these southern waters.

Outer Island Economy. While Jamaica and Trinidad support sizable industries, the old plantation economy prevails on the outer islands. They must depend mainly on sugar or sea island cotton. Spices, arrowroot, starch, rum, and peanuts are exports of lesser importance. Where sugar is the main crop, as on Barbados and Antigua, there are long periods of seasonal unemployment, since the cultivation and processing of the crop lasts only from four to six months. The government, through the Peasant Development Organization, has allocated small holdings to the sugar and cotton workers, to cultivate during their times of unemployment. These are on an annual rental basis, of from $2 to $8 an acre. The peasants are today struggling for outright ownership of their tiny farms.

A rapidly growing population is another factor that is making competition for jobs more acute and forcing many to

Capital City. Port of Spain, on the west coast of the island of Trinidad, was chosen by the people as the capital of the British Caribbean Federation. Trinidad is second largest of the islands and the southernmost, lying twenty-six miles north of Venezuela near the mouth of the Orinoco River. It was discovered by Columbus in 1496 and colonized by the Spaniards in the 16th century. The British have controlled it since 1802. Many French families settled on the island during the French Revolution. Its population is a mixture of Spanish, English, French, and East Indian, with Africans, descendants of slaves, predominating.

Calypso's Contribution. Trinidad's accessibility, balmy climate, rich and varied resources, and natural scenic beauties make it highly suitable as a center of government and cultural life. Lying close to the South American mainland, it is free of the devastating hurricanes that periodically visit some of the islands further north. Of interest to many North Americans is the fact that Trinidad is the home of Calypso balladry. Calypso is a "living newspaper" type of folk singing, and in the past singers have voiced the yearnings and protests of a subject people. To what extent the singing of topical songs has hastened freedom, no one can say, but a popular ditty ran as follows:

"Arise, ye lethargic West Indians,
Make no delay
We want full representation right away
Federation of the West Indies today."

Elation and pride now mark the songs, with their strange irregular rhythm and sudden flashes of sophistication. Here are samples which these minstrels are singing:

"We all have good cause to be proud and glad
From Jamaica, St. Kitts and back to Trinidad
At the new power and status we have gained
At the respect and dignity we have attained.
What a far cry from the jungle tracks
With yokes on our necks and whips on our backs,
What a startling metamorphosis, you will allow,
From a slave to a Commonwealth partner now.

And so West Indians can shout aloud
We're pleased, we're happy and very proud
For after struggling heroically
We have finally won a glorious victory
With advance in trade, commerce and prosperity,
With Federation now a *fait accompli,*
And in this new recognition and dignity
We'll be praised and blessed by our posterity."

Oil and Asphalt. Trinidad's oil has been exploited since 1909. There are several refineries on the island. Asphalt is also an important resource, and Pitch Lake is one of the tourist "sights." From Pitch Lake, which is about three miles in circumference, asphalt is cut and shipped to the United States and the United Kingdom. Maracas Falls, a splendid waterfall in the mountainous, forested interior, is another favorite tourist attraction. The soil of Trinidad is exceedingly rich, well adapted to the growth of tropical and semi-tropical products—cocoa, sugar cane, tobacco, coconuts, coffee, citrus fruits, bananas, and many kinds of timber.

In addition to agricultural work and jobs in the oil and asphalt industries, there is now a building boom on the island, which gives employment to many. Civil service and administrative posts formerly held by the British are being opened to trained native personnel.

U. S. Base. As mentioned earlier, many Trinidadians want the United States to vacate Chaguaramas Base, which occupies about 18 square miles of choice land with panoramic views and good port facilities. They regard it as an ideal site for the development of their new capital.

During World War II, Great Britain granted the U. S. Navy a 99-year lease on this area in return for 50 over-age

perial College of Tropical Agriculture on Trinidad, with a student body of about 100; and a small theological college on Barbados.

Background. In August, 1956, British royal assent was given to the Caribbean Federation Act. Conferences held in 1947 and 1953 had worked out a general plan for self-government. This was submitted to the several island legislatures and adopted by all except that of the British Virgin Islands. (The Bahamas and the Bermudas are not included in the Federation.) A third conference continued as a standing body to deal with administrative work and the preparaton of a federal draft constitution. The governor is appointed by the British Crown, but the federal parliament, elected by popular suffrage, is to write the laws and select the prime minister. Great Britain is to make an annual grant to the Federation until 1968. Dominion status will probably come within five years.

The steps leading up to this new status have been achieved peacefully, thanks to able leaders who worked within the existing legal framework. Among these are Norman W. Manley and Sir Alexander Bustamente, each the leader of a labor party. Eric Williams is head of the People's National Party, which based its campaign on demands that the United States give up its naval base at Chaguaramas.

Sir Grantley Herbert Adams, the Federation's prime minister, is a native of Barbados. He attended Oxford University and returned to his island home to practice law, then to become an editor, pamphleteer, and leader of the Federal Labor party. He fought the domination of the great landlords and championed other reforms, including universal suffrage. Queen Elizabeth knighted him in 1957.

JAMAICA SUGAR CANE being harvested, with the help of sturdy oxen.

WEST INDIES

VACATIONERS who have established a beachhead in the West Indies.

Independence—Almost. World Topics Year Book has recorded the launching of a number of brand-new nations, each one celebrating the event in its own unique way. The Federation of the West Indies observed its newly-won status with festivities that included song, dance, and the reverberating music of steel bands. Two weeks of high carnival began on April 22, when Princess Margaret was received by Lord Hailes, governor general, and proceeded to open the first federal parliament at Port of Spain, Trinidad. Rhythm and artistry are in the blood of the inhabitants of the far-flung islands. They presented the best of their culture to the many visitors by way of spectacles, concerts, and plays. Underneath ran the serious purpose of uniting a people of many racial origins to make their experiment succeed. The British West Indies were no longer scattered island colonies but a self-governing federation.

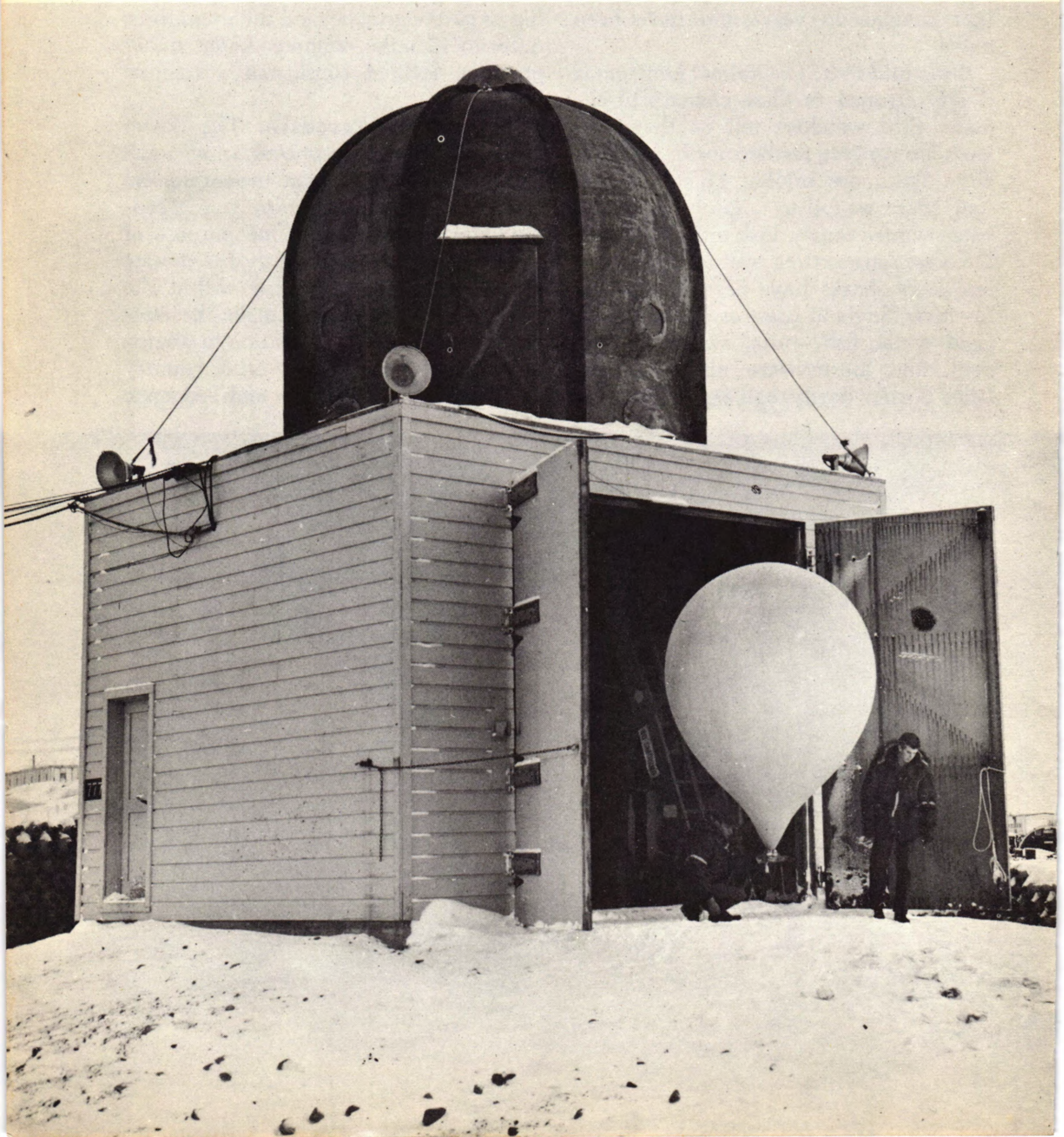
The difficulties are many. The population of about three million persons is dispersed on islands widely spread over the Caribbean Sea. The facilities for communication and trade are poor, but a system of inter-island shipping is being set up. Lack of educational facilities, at the upper level, are also a serious handicap. Institutions of higher learning include University College on Jamaica, chartered in 1948, with about 500 students and a faculty of over 100; the Im-

 WEATHER AND CLIMATE

implications.

In the United States, the Committee on Meteorology of the National Academy of Sciences recommends a long-range attack on some of the problems of our physical environment. The committee asks for the foundation of a National Institute of Atmospheric Research, to stimulate and also to coordinate activities in this field, to get more support for meteorology in the universities and help in the recruitment of more students in this department. The American Meteorological Society, composed of specialists, is also urged to publicize and expand its activities.

AT THULE AIR BASE, Iceland, which has some of the world's worst weather, men of the Strategic Air Command prepare to launch a weather balloon.



WEATHER AND CLIMATE

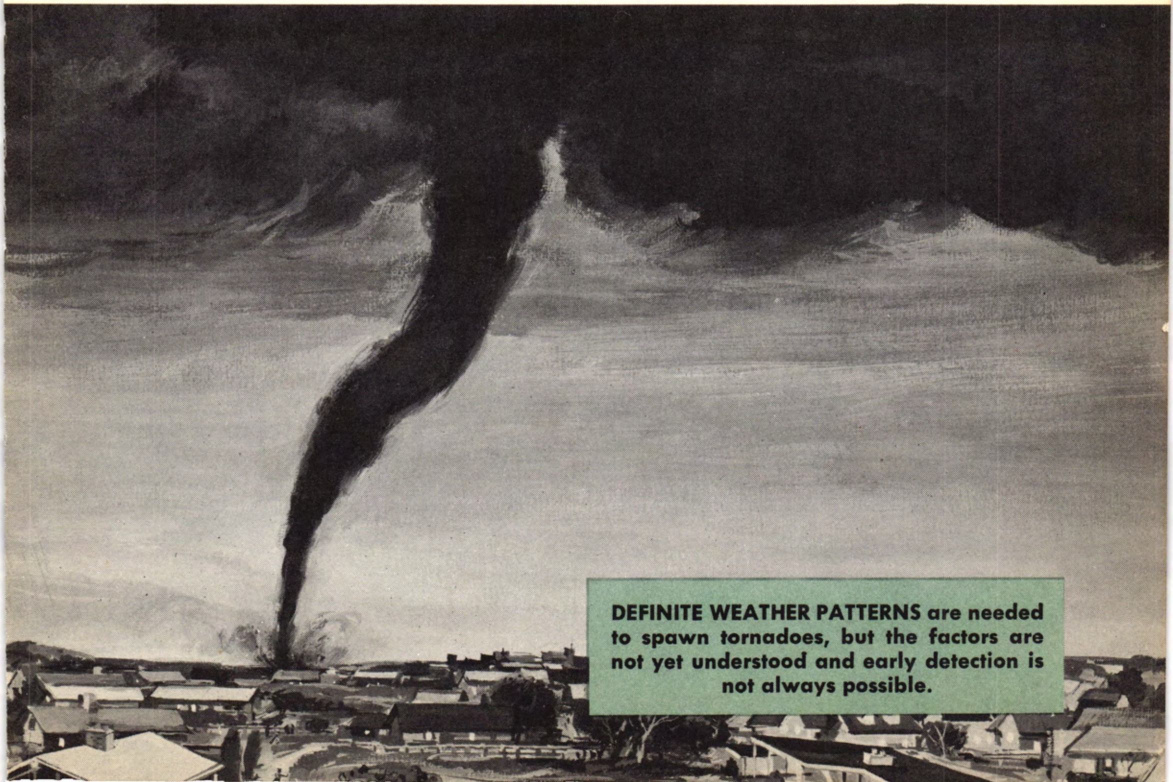
be another result—and a dangerous one —of the temperature rise.

Vegetation and Climate. Hardy vegetables are today thriving farther north than ever before in historic times. Barley, wheat, and oats are growing on farms only 60 miles from the Arctic Ocean. This has vast importance in a world where rapid population growth demands more and more food. Successive hot summers have killed off white birch in New England and Canada and other important changes in vegetation have been noted.

Birds and Fish. The animal kingdom is closely attuned to these changes of climate. Bird watchers tell us that song birds are ranging farther north, and that more Baltimore orioles, bluebirds, and song sparrows fail to migrate southward when winter comes. Fish are aware that the oceans are getting warmer. For about ten years sharks have been sighted off the New England coast as early as July. Cold water fish—tuna, swordfish, salmon, and lobster—are appearing 100 miles farther north than before. Natives of Greenland, who once caught walrus and seals, are now catching cod.

In fact, a small war has developed over codfish in Iceland's coastal waters. In the summer of 1958 Great Britain and Iceland were engaged in a serious dispute over fishing rights off the coast of Iceland. As the cod swam into the colder northern waters, the British fishing fleets pursued them. Iceland, which derives its income from the export of fish, acted swiftly to protect its industry by extending its sovereignty beyond the usual three miles to 12 miles offshore. Later, under pressure, Iceland considered a six-mile limit.

Long-Range Research. The Soviet Union is reputedly concentrating much of its scientific effort on meteorological research, with a great many young people entering this field. One purpose of Russian research is to modify the climate of the part of Siberia lying within the Arctic Circle, in order to make these regions habitable. Any alteration in weather patterns in this or any other country has far-reaching military and economic



DEFINITE WEATHER PATTERNS are needed to spawn tornadoes, but the factors are not yet understood and early detection is not always possible.

WEATHERMEN of the Strategic Air Command review weather analyses and chart maps, routine work at Westover Air Force Base.

cisely controlled ways of cloud seeding are being sought.

Weather and Climate. Weather deals with the day-to-day phenomena of the atmosphere. Climate is the long-range picture. In spite of an occasional season with very low temperatures, such as the winter of 1957-58, the average temperatures are on the rise. Records have been kept in most parts of the Northern Hemisphere since of the middle of the 19th century, and during this time mean annual temperatures have risen from one to four degrees. In Philadelphia the rise has been four degrees; in Montreal, 2½ degrees, in the 70 years during which records have been kept there. The Atlantic and Pacific Oceans are also becoming warmer. Last year the ice went out at Point Barrow, Alaska, the earliest in recorded history. Off the California coast, the water all through the summer of 1957 averaged as much as 5.5 degrees above the 1945-56 average summer temperature. This, many meteorologists believe, is a part of a global climate cycle extending over thousands of years, not a random fluctuation. If the former, it could bring another ice age, by warming northern waters and starting the enormous glaciers around the poles to move toward the equator. A very small rise in temperature over a 100-year period would be enough to soften up the polar ice-cap. The higher level of the seas and oceans resulting from melting ice would

FUNERAL PROCESSION, Strasburg, Pa., where Amish men and women still use old-time sleighs after a heavy snowfall, instead of the traditional wagons.

skyward into the heart of a suitable cloud formation, usually overhanging a mountain top. The silver iodide dust formed nuclei around which ice crystals gathered. These droplets fell and passing through warmed air turned into rain. The rainmaking experiments were considered by some weather analysts to have influenced weather not only locally but over much of the eastern half of the country. Dr. Langmuir himself considered them so successful that he was quoted as saying that it was easier to make weather than to forecast it.

During the years following, there was further experimentation in cloud seeding in many parts of the United States. Four methods were used: silver iodide from the ground, silver iodide from the air, water from the air, and dry ice from the air. Silver iodide from the ground, the Langmuir method, proved successful, and silver iodide from the air was promising. The other methods were considered less effective. Sponsors of the various projects have been county, state, and federal agencies, and the meteorological departments of universities. Successful experiments were conducted in the vicinity of Puerto Rico by the University of Chicago, by the method of cloud seeding from the air with water.

In general, the results have been better in mountainous and semi-mountainous regions than in flatlands. Commercial cloud seeding has become a part of the agricultural picture, and promises to have greater economic importance in the future. The suppression of hail and lightning, the control of hurricanes and cyclones, are further projects which are the concern of meteorological researchers.

Triggering precipitation has its perils. It may be harmful as well as beneficial. When one area wants rain, another, nearby, may need a dry spell for getting in the crops. Once a chain reaction has been started, it may be impossible, or impractical, to end it. Lawsuits have arisen due to damages resulting from unwanted precipitation caused by cloud seeding. Man must be able to predict in advance the results of intervention, and at present this is not possible. More pre-

WEATHER AND CLIMATE

UNUSUAL BECOMES USUAL

In 1957, a score of weather records were broken. Here are some broken in 1958:

Many parts of the Northwest had their warmest January and February on record.

Southern Florida had its coldest January and February.

More snow fell in Buffalo, Rochester, and Syracuse in February than in any other month on record.

March was the wettest in a hundred years in Southern Florida, and the driest in more than a hundred years in the southern Great Lakes region.

April was the coldest on record in Cape Hatteras, N. C. and Ely, Nevada.

May was the hottest on record in several parts of the West.

June was the coldest on record in several parts of the East.

In July, twelve inches of rain fell on Audubon, Iowa, in a single day.

In September, fourteen inches of rain fell on Orange, Tex. in nine hours.

alyses on television, but out of doors may be less acute as an observer of cloud, wind, and other weather signs than his ancestors.

Hurricane Warning. The Weather Bureau is supplemented by other agencies. Three years ago, the National Hurricane Research Project was set up. It has been studying the dynamics of hurricanes, hoping to extend the time of warning.

By the Weather Bureau's definition, the winds involved in a hurricane must blow at least 75 miles an hour, although its forward speed may be as little as 12 miles an hour. It is an air mass shaped like a doughnut, its center three to 40 miles in diameter, and a rim-to-rim measurement of 25 to 500 miles. Inside the vortex, in the eye of the storm, calm prevails and the sun shines. Many people have been deceived, when the eye of the hurricane passes overhead, thinking the storm is over. Then they are caught by the full force of the huricane's further rim.

Navy jet planes fly into the hurricane-breeding areas, sometimes into the heart of the disturbance, to make visual observations on the state of the sea, the force and direction of the wind. As the hurricane approaches the land, weather balloons are sent up to radio back a variety of data. How to break up a hurricane, or modify its force, is still unsolved, along with many other problems of modifying weather.

Undoubtedly man's ventures into space will have some bearing on both forecasting and modification of weather. Dr. Harry Wexler, federal director of meteorological research, says that U. S. satellites traveling pole-to-pole orbits soon will be providing data on every storm on earth. He declared that the satellites will be able to detect and track both the large cloud systems associated with hurricanes and the smaller ones involving only thunder storms and squalls. All such data, relayed back, will enable weather forecasters to see farther—and more reliably—into the future. In this way, too, more knowledge will probably be gained as to the relationship of outbursts on the sun to the earth's atmosphere and other phenomena of outer space.

Rainmaking. Efforts to modify weather in the matter of precipitation were carried on by the world-famous physical chemist, Irving Langmuir, in the Southwest, beginning in 1946. The experiments consisted of cloud seeding with silver iodide from a ground-based generator. The generator sent a wave of gas

resulting from atomic blasts is affecting the weather. Others claim that the great blanket of carbon dioxide and waste products in the atmosphere today serves to entrap more of the sun's heat on the earth's surface, causing a rise in average temperatures. Meteorologists assert quite positively that the earth is growing warmer. At the same time, we are warned of a new Ice Age.

Wayward Weather. The Northern Hemisphere has lately been beset by freakish weather. The winter of 1957-58 was unusually bitter throughout the Northeast. Snowfall in parts of upper New York State and Vermont measured more than four feet. Prolonged below-zero temperatures were common in many parts of the Midwest. Washington, D.C., was almost paralyzed for two days by an unheralded snowstorm. Florida's freezing temperatures ruined much of the fruit crop and there were unusually destructive spring floods in Texas and California. During the late summer and autumn, hurricanes swept along the Atlantic Coast and in from the Gulf of Mexico. In Mexico, there were autumn floods on the Rio Grande and Lerma rivers, after the heaviest rains in 51 years. Japan suffered a devastating typhoon which took a heavy toll of life and left more than half a million persons homeless. The havoc resulting from these happenings revived an old query: Can't something be done about the weather?

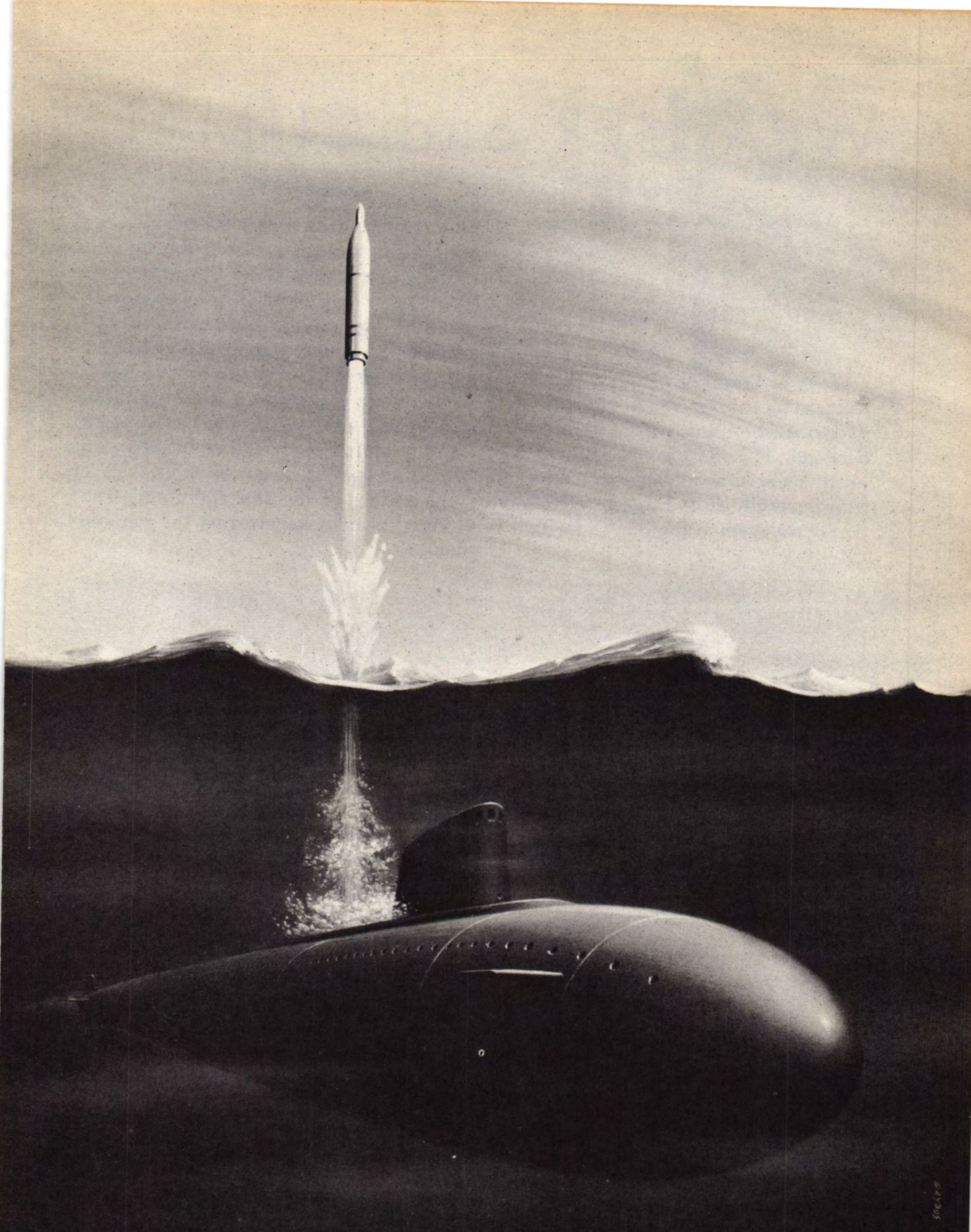
Doing Something. Action with respect to weather (in distinction to reaction, which means coming in out of the rain or seeking refuge in a cyclone cellar) falls into two parts, forecasting and control. Weather forecasting has become a recognized science, and the U. S. Weather Bureau is one government agency that everyone is grateful for. Today the average man may have more weather knowledge than his father. Certainly he watches with fascination the graphic weather an-

TOWBOATS IN TANDEM ram their barges through the ice-encrusted Ohio River. Army engineers are responsible for keeping the channel clear.

WEATHER and CLIMATE

Ways of Weather. Our weather is dependent on the movement of air currents whose mechanisms are imperfectly understood. The movements of the atmosphere constitute a gigantic engine for transferring heat and moisture from one part of the earth to another. In the Northern Hemisphere, warm humid masses of air tend to move up from the Equator. Cool, dry masses come down from the Arctic. Winds blow in a clockwise direction around the high pressure areas above the Equator, and the opposite way around the high pressure areas below it. There are all sorts of confusing local movements caused by the varied topography of the earth. Other influences on weather patterns may be upheavals on the surface of the sun and cosmic rays. Some theorists believe that the radiation

THIS NEW YORKER, armed with a shovel, makes his way through one of the season's worst snowstorms, Feb. 16.



POLARIS BALLISTIC MISSILE, designed to be fired from an atomic submarine. Although this is an artist's sketch of the launching of the Polaris, the weapon has already been successfully tested. Westinghouse developed the launching system.

VOCABULARY

To add to your vocabulary, here are new words, along with some foreign words and phrases which appear in today's newspapers and magazines:

al fresco: an Italian phrase meaning in the open air or where it's cool.

apartheid: the policy of complete segregation of white and black races that prevails in South Africa. The word is Dutch.

argot: French for slang.

binaural: a sound system in which two separate microphones about six inches apart are used in the recording studio. The sound from the left microphone reaches a headphone on the listener's left ear; that from the right microphone, a headphone on his right ear. There is no mixing of sound. Binaural reproduction produces an astounding realism. Binaural tapes and records are being sold commercially, the latter played by special equipment with two needles. (See *Stereophonic,* below.)

colon: as used in recent news this means—not a part of the digestive tract —but a French colonist in North Africa.

enosis: a Greek word meaning union; used today to denote the movement for uniting Cyprus with Greece.

harijan: Hindi for "children of God"; denoting the class of untouchables or outcasts in India which has now been officially abolished.

kudos: from the Greek word, *kydos,* glory or fame.

Mafia: a loosely organized international fraternity, originating long ago in Sicily, in defiance of legal authority. It is said to control a vast network of profitable criminal activities, including narcotics smuggling in the United States.

miniaturization: the technology of creating smaller and smaller components to meet the needs of aircraft, rockets, and missile production, such as ball bearings so tiny that a thousand of them weigh less than an ounce. The printed electrical circuit and the transistor make possible miniaturization of many electronic devices.

potpourri: a jar of dried fragrant flower petals and spices used to scent a room; also a mixture or medley; *pourri* is past participle of the French verb to rot.

quipu: from the Spanish *quipo,* knot; a device used by the ancient Incas of Peru for counting and for recording important facts and events; it consisted of a main cord, to which smaller cords of various colors and lengths were attached by an intricate system of knots; the knots could be "read" or interpreted by professionals; the Incas had no written language.

stereophonic: an adjective used to describe any multichannel system in which the sound from each microphone eventually reaches its own loud speaker in the living room. The two or more speakers create a spread-out curtain of sound that corresponds to the sound in the studio, with each ear getting some sound from all speakers.

summitry: a word humorously used to describe the art of diplomacy as practiced by top statesmen. Several years ago Winston Churchill used the phrase "parley at the summit," and since that time "meeting at the summit" has been used to denote a gathering of the heads of state of the three or four strongest powers.

syndet: a commercial word used to describe any synthetic detergent.

Marian Anderson. Through her worldwide tours Miss Anderson is known and highly regarded in the far corners of the earth. At her first session, she said modestly that she could only "stop, look, and listen."

A new honor, not before held by a woman, was this year conferred on Mrs. Agda Rossel, who became Sweden's permanent delegate. She will stay in New York the year round. Mrs. Ulla Lindstrom, Swedish minister of state, is another member of the same delegation. Mrs. Lindstrom last summer became the first woman to serve as her country's prime minister. The Swedish delegation included earlier the brilliant writer, Mrs. Gunnar Myrdal, who is now Sweden's ambassador to India.

Denmark had three women in its 1958 delegation. One of them was Mrs. Else Zuethen, a member of parliament and chairman of an international pacifist organization. Norway and Finland also had women members of parliament in their delegations.

Since feminism developed early in Northern European countries, it is natural that the women of Sweden, Norway, and Denmark should appear prominently at the United Nations. What is astonishing is the appearance in responsible positions of the women of the Far East, North Africa, and the Latin American countries. A group of very able women came from the Communist countries. It included Mrs. Maria M. Pidtychenko, of the U.S.S.R., director of the Kiev Pedagogical Institute; Mrs. Helen Leflerova, member of the Czech National Assembly; Mrs. Marta Koloza and Mrs. Ida Gyulai of Hungary.

HASHIM JAWAD suddenly appeared at the U.N. after the revolt in Iraq to represent that country, replacing Abdul Abbass. Iraq is the only Arab country on the 11-nation Security Council.

Latin American countries have women delegates, as do Indonesia, Japan, India, Iraq, Greece. Afghanistan, El Salvador, and Tunisia sent women delegates in 1958 for the first time. Canada had in its group Mrs. W. T. Hayden, a member of parliament from Halifax, and the United Kingdom had Miss Patricia Hornsby-Smith, who is taking a leading part in "World Refugee Year," a voluntary project whose aim is to clear the refugee camps in Europe and Hong Kong.

EGYPTIAN-SYRIAN MERGER. Where there were two countries, now there is one, and this United Nations secretary makes the change official.

has been almost wiped out in nine countries where it was very prevalent, through swamp drainage and DDT. Yaws is another terrible tropical disease which has been eliminated in some areas, controlled in others.

Women at the U.N. Since its founding, women have played important roles at the United Nations. Eleanor Roosevelt, a member of the United States delegation at the first session, did notable work in preparing the Charter on Human rights. Women have served usefully ever since. Mrs. Oswald B. Lord, a veteran member of the U. S. delegation, was joined this year by the noted Negro singer, Miss

under U.N. auspices, but such a meeting was never agreed to.

Important matters were considered at the meeting of the General Assembly, called late in July. In addition to the Mideast, Cyprus and South Africa were among the "hot spots" receiving attention. The Union of South Africa withdrew, returned, and withdrew again, when a U.N. committee decided to hear persons presenting the case for mandated Southwest Africa. The natives of this region want to be under U.N. trusteeship instead of rule by the Union of South Africa. There has been a crusade at the U.N. to mass opinion against South Africa's Apartheid policy. In the past, when the South African question was debated, the United States abstained. In the 1958 voting, with George M. Harrison as spokesman, it voted with the Afro-Asian nations. Mr. Harrison said in part: "It is our belief that a multireligious, multiracial society cannot be based on segregation—or separation."

JAPANESE DELEGATE to the U.N., Koto Matsudaira, provided a plan for expanding the Observer Group in Lebanon, thus allowing withdrawal of U. S. Marines.

Nuclear Progress. The Second International Conference on the Peaceful Uses of Atomic Energy (treated under NUCLEAR POWER) was under U.N. auspices. The U.N.'s commission on atomic radiation reported the mounting hazards, and many countries protested at General Assembly meetings against continued testing.

Other Activities. A U.N. commission on Hungary reported its findings; an economic commission for Africa, to study the over-all potentialities of that continent, began to function. The General Assembly voted in favor of the U.S. resolution (44-28, 9 abstentions) not to discuss the seating of Communist China at the 1958 session.

World's Health. As usual, the various specialized agencies of the United Nations continued their constructive work—without making the headlines. One of the busiest is the World Health Organization—WHO—which observed its 10th anniversary in 1958. It serves as the world's clearing house for medical techniques and procedures, but its main function is to send medical teams into given areas, and by teaching, demonstrations, inoculations, and other forms of therapy start people on the road to better health. The agency has an international staff of about 1,000, and is comprised of 48 member countries. By mobilizing the medical and technical skills of many nations, WHO has been able to make a mass attack on epidemic diseases which have taken a toll of human life for centuries.

The first big victory was in the fight against cholera in Egypt in 1948. Ten years later, cholera—as well as typhus, small pox, and yellow fever—are claiming fewer victims every year. Progress has also been made against tuberculosis, leprosy, and venereal diseases. Infant mortality has been greatly reduced. Malaria

of School Affiliation Service will visit any school which is interested in linking up with a foreign school. There should be a balance between the two schools as to size and other factors. When the link is established, it means that national barriers are lowered. There follows an exchange of letters, classroom projects, books, and students and teachers also. Often students cross the ocean to participate in the summer activities of their partner schools, and a great enrichment is the result. The movement now involves 230 schools in six nations — England, France, Germany, Belgium, the United States and Japan.

YOUTH ACTIVITIES

WORK CAMPS

Work Can Be Fun. Although some parents might be inclined to disagree, adolescents find hard work extremely interesting, even fun, in certain situations. It can be something they tackle enthusiastically in the morning and, at night, look back on with happy satisfaction. This is the firm conviction of the adults who direct summer work camps for high school boys and girls.

The summer work camp, run by a social service agency, by a school, or a religious group, has been a part of the American scene for about a quarter of a

HIGH SCHOOL STUDENTS, members of the American Friends Service Committee, talk with Supreme Court Justice William O. Douglas at a Civil Liberties conference.

century. It has proved one of the most beneficial devices for young people, particularly those who are being reared in cities, to become acquainted with the realities of rural life and the joys of outdoor work. The administration of a work camp project requires a lot more than good intentions. Expert supervision and planning are necessary at every step. A wealth of helpful information is available from those who have pioneered in this work.

The Common Goal. The Society of Friends and the Progressive Education Association sponsored many of the early work camps. The Ethical Culture Schools of New York City were also in the forefront of this movement, providing teachers as leaders and organizers. The general aim is to give a group of young people, from different backgrounds, an experience in group living for a few weeks, during which they accomplish some job that needed doing. The solving of little day-to-day problems of techniques and methods, the acquisition of some new skill, and, above all, the common goal—this helps young people to take a long step toward maturity.

Real Accomplishment. One work camp project was the rehabilitation of an old farmhouse and the surrounding area which had long been used as summer vacation headquarters for a New York settlement house. The group and the staff lived in tents near by, did their own cooking and laundry. In addition, they mended a roof, repaired various outhouses, painted the house, cleared a meadow for the grazing of animals, and kept the vegetable garden weeded. The girls also took care of small children, giving the tired mothers from the city's slums a rest. Physically and spiritually it was a fine experience for them.

At a higher level, and with different purposes, are work camps for college stu-

A CAR CLUB does not necessarily mean wild teen-agers racing down the highway. Some hot-rod or car clubs do constructive work in their communities. Here, Cal Rod Car Club members of Baldwin Park, Cal., enjoy a singfest.

dents. These have frequently been set up in areas of economic and social tension. The campers learn of other people's problems and work by settling near a camp of migratory workers, in a mining village, or where some public works project is producing dislocation.

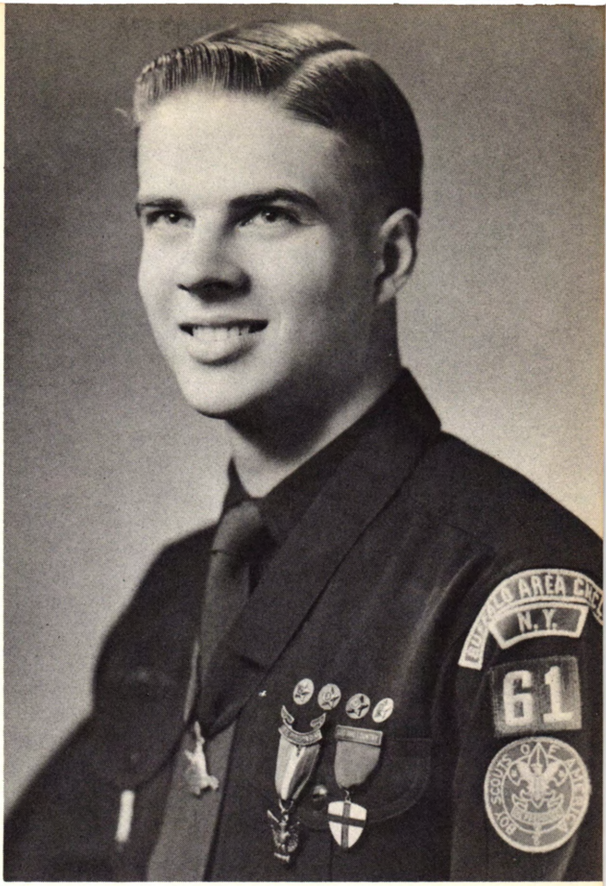
Overseas Camps. At still another level, with a more complex design, are the international work camps which sprang up after World War II. Camps in pre-Communist Czechoslovakia and France drew groups of students, under Quaker or other sponsorship, to repair war damage. In France, high in the Savoy mountains, one international group of young people of high school age did the initial manual labor that preceded the construction of cottages for tubercular children.

The Youth Department of the World Council of Churches sent forth 1,000 young people of some 14 nationalities between the ages of 18 and 30 to labor six hours a day in 30 "ecumenical work camps" and to spend the rest of their nonsleeping hours in Bible study, discussions, excursions, and activities for the local community. There were camps in Egypt, India, Japan, Jordan, Korea, Lebanon, Malaya, Mexico, Okinawa, and the Philippines, in addition to the United States and Europe.

The American Friends Service Committee operates a similar program, with about 40 camps overseas, offering opportunities in Kenya, India, Pakistan, and Haiti, as well as camps in the United States among urban slum dwellers and American Indians.

The aim of the overseas camps is, in addition to the achieving of specific work projects, to spread understanding and Christian fellowship.

On the home front, there are in every community public chores that need doing. With adult leadership, with a definite goal, useful projects can be successfully carried through on the day-camp system, with benefit to both young people and the community.



RICHARD LEE CHAPPELL, Boy Scout, was 18 when he was invited to be a member of the U. S. South Polar expedition in 1956. Now a freshman at Princeton University, he has been writing a book about his experiences which will be published in 1959.

BOY SCOUTS

Boy Scouts and Conservation. The Boy Scouts of America have for several years participated in a major conservation effort. Projects varied from area to area, according to the need: tree planting in some places, soil erosion control or grass planting in others. In 1958, the Boy Scouts shared in a nation-wide safety-campaign. Carrying out these various projects help Scouts to achieve that sense of life-participation, of belonging to something larger than themselves.

ZOO

THE POTTO is a small, slow-moving nocturnal monkey from West Africa. This one was part of a shipment of apes and monkeys sent to Brown University for biological research.

THIS PRIZE-WINNING PHOTOGRAPH of a great white heron was made by a Formosan, Chaun-Chu Lin, who called his picture, "Take-off."

ALL ADULT PENGUINS are excellent parents. The Emperor Penguin chick nestles on the feet of its mother—or father—even as the adult walks around.

BABY SHARKS, born in a bathtub. Their mother, caught a day earlier, did not survive. Seawater was provided for the babies to swim in and they thrive on a diet of bread crumbs—but what is the family doing about baths?

HE DACHSHUND AND CAT are boon compan-ns, even ready to offer alibis for each other. ere the dachshund seems worried that kitty ill be tempted to make a swift pounce on an innocent fish.

A Guide for Readers . . .

Prepared by Winifred Metzler, Librarian
University High School, Illinois State Normal University

THE AMERICAN HERITAGE BOOK OF THE REVOLUTION. *Simon & Schuster,* $12.50. A good index makes this an excellent reference book. The text has both literary style and readability. In addition there are many color photographs and reproductions of fine art treasures of the period. An excellent addition to the book-lover's library.

ANDREWS, WAYNE, Editor—THE BEST SHORT STORIES OF EDITH WHARTON. *Scribner's.* $4.50. A new edition containing ten of Edith Wharton's short stories. The editor's introduction discusses the author as revealed by her stories.

ANGLE, PAUL M., Editor—CREATED EQUAL? The Complete Lincoln-Douglas Debates of 1858. *U. of Chicago Press,* $7.50. The seven debates of 1858 are presented with a worthy introduction by Lincoln Scholar Paul Angle.

BACH, DR. MARCUS—GOD AND THE SOVIETS. *Thomas Y. Crowell,* $4.00. Dr. Bach talked with both atheists and those who attend Russia's churches, as well as with ministers and priests. His book is one all Americans should read.

BENTON, WILLIAM—THIS IS THE CHALLENGE. *Associated College Presses,* $3.95. William Benton believes that Russia's challenge to us lies in the field of education. The value of his book lies in the recommendations he makes to help the United States meet this challenge.

BOULLE, PIERRE — THE OTHER SIDE OF THE COIN. *Vanguard Press,* $3.50. For his latest novel the author of *The Bridge Over the River Kwai* turns to Malaya and the lives of three people—the resident director of a large European-owned plantation, his American wife, and a young girl who is a Chinese Communist soldier. This one is every bit as good as *The Bridge.*

BOYINGTON, COL. GREGORY, U.S.M.C. (Ret.) —BAA BAA BLACK SHEEP. *Putnam,* $3.95. "Pappy" Boyington of Flying Tigers and Black Sheep fame tells his story. Like Lillian Roth in *I'll Cry Tomorrow,* he pays a tribute to Alcoholics Anonymous.

BROWNELL, BAKER—THE OTHER ILLINOIS. *Duell, Sloan and Pearce,* $4.50. The foothills of the Ozarks in Southern Illinois provide the locale for another volume in the American Folkways series. Those who know and love southern Illinois will fully appreciate Brownell's book. Others should find it an excellent guidebook.

BRYHER—GATE TO THE SEA. *Pantheon,* $2.75. The fall of ancient Paestum to the barbarous Lucanians is pictured in 118 short pages. Beautifully written, this tale holds a lesson for us today.

CARRIGHAR, SALLY — MOONLIGHT AT MIDDAY. *Knopf,* $6.50. Sally Carrighar, who gave us *One Day on Beetle Rock* and *One Day on Teton Marsh,* has lived in Alaska for almost ten years. At long last, here is Alaska, the 49th state, described by one who knows and loves its scenery, animals, and people. The book has a good index, good bibliography and excellent photographs.

CERAM, C. W.—THE MARCH OF ARCHAEOLOGY. *Knopf,* $15.00. The author of *Gods, Graves and Scholars* presents a beautiful, pictorial history of archaeology.

COUSINS, NORMAN, Editor — IN GOD WE TRUST: The Faiths and Personal Philosophies of the American Founding Fathers. *Harper,* $5.95. The American Dream was based on a living religion as this anthology of selections from speeches and letters of men who founded our country demonstrates.

COOK, JAMES — REMEDIES AND RACKETS. *Norton,* $3.75. Medical quackery is exposed by an expert. James Cook makes it clear that this is one of the safest and most lucrative rackets. Names are called and facts are documented in a book well worth reading.

CORNELL, GEORGE W.—THEY KNEW JESUS. *Morrow,* $3.75. The Religion Editor of the Associated Press has written a remarkable book which first appeared as a series of newspaper articles. Twenty-four men and women who knew Jesus are presented. The beautiful and familiar language of the King James version is used.

DEMPSEY, DAVID—ALL THAT WAS MORTAL. *Dutton,* $4.95. David Dempsey recreates "the good old days" in a novel about three generations living in an Illinois town.

DRYER, BERNARD—THE IMAGE MAKERS. *Harpers,* $4.95. This novel seems destined for best-sellerdom and the movies. New York, Paris, Algiers and the Algerian revolt provide the background for a timely story in which interest never wanes.

ESPY, HILDA COLE—QUIET, YELLED MRS. RABBIT. *Lippincott,* $3.75. Mrs. Espy chose her title from a story written by one of her daughters. Her family of five are lovingly, understandingly, and hilariously presented in this delightful book.

FEUCHTWANGER, LION — JAPHTA AND HIS DAUGHTER. *Putnam,* $3.95. Based with true scholarship on the 11th and 12th chapters of the book of Judges, this Biblical novel should rank with the writings of Thomas Mann and Scholem Asch.

FISHER, VARDIS—TALE OF VALOR. *Doubleday,* $4.95. Readers will be impressed with the brave young men who made up the Lewis and Clark expedition, and they will long remember the brave little Shoshone Indian girl, Sacajawea, who served as their interpreter and guide.

GINGER, RAY—ALTGELD'S AMERICA. 1892-1905. *Funk & Wagnalls,* $4.95. Chicago's story is told in this fascinating book, and many famous Chicagoans walk its pages. Here one meets such well-known Americans as Jane Addams, Clarence Darrow, Frank Lloyd Wright, Marshall Field, Cyrus McCormick, and others equally well known. But above all stands John Peter Altgeld, Illinois' great humanitarian governor.

GOLDEN, HARRY—ONLY IN AMERICA. *World Publishing Co.,* $4.00. Delightful essays by the former Lower East Side Jew who moved to Charlotte, North Carolina, and established a weekly, *The Carolina Israelite,* which is widely read. Carl Sandburg wrote the foreword for this gem of one man's thoughts on America.

GOUDGE, ELIZABETH — THE WHITE WITCH. *Coward-McCann,* $5.00. The author writes skillfully and beautifully of England during its civil war, and of the half-gypsy healer, Froniga, the "White Witch."

GUNTHER, JOHN — INSIDE RUSSIA TODAY. *Harper,* $5.95. Another of Gunther's excellent "Inside" books, this one should have equally popular appeal to the American reader. John Gunther is a capable reporter who has a remarkably readable style.

HANDLIN, OSCAR — AL SMITH AND HIS AMERICA. *Atlantic-Little Brown,* $3.50. In the light of Senator John Kennedy's possible aspirations in the 1960 elections, this timely review of the "Happy Warrior' proves thoughtful reading. Religious prejudice was probably the predominant factor in Al Smith's defeat for the presidency.

HARRISON, HARRY P., as told to Karl Detzer —CULTURE UNDER CANVAS: The Story of Tent Chautauqua. *Hastings House,* $6.50. Those who remember Chautauqua days will especially enjoy this reminiscence. Chautauqua brought culture, important issues of the day, important people and fun to entertainment-hungry towns.

A GUIDE FOR READERS

KENNAN, GEORGE F.— RUSSIA, THE ATOM AND THE WEST. *Harper,* $2.50. A collection of the much discussed lectures on international problems given over the B.B.C. in England. The reader may agree or disagree with Kennan's recommendations, but whatever the reaction, his scholarship and fine prose challenge thought.

KANE, HARNETT T.—THE SOUTHERN CHRISTMAS BOOK. *David McKay Co.,* $4.95. Harnett Kane's roots are in the South, so this tale of Christmas in the Southland rings with reality and warmth.

KOGAN, HERMAN AND WENDT, LLOYD — CHICAGO: A PICTORIAL HISTORY. *Dutton,* $6.95. More than 400 pictures and 40,000 words combine in a fascinating book.

KRIEGER, F. J.— BEHIND THE SPUTNIKS. A SURVEY OF SOVIET SPACE SCIENCE. *Public Affairs Press,* $6.00. Largely translations of Russian newspaper articles, the survey is arranged logically from such subjects as Space Flight, Astronautics and Biological Factors, down to Satellite Plans and the Sputnik.

LAPP, RALPH E.—THE VOYAGE OF THE LUCKY DRAGON. *Harper,* $3.50. A day-by-day record of the voyage of the Japanese tuna boat Daigo Fukuryu Maru (Lucky Dragon No. 5). This Japanese fishing boat was the victim of the U bomb exploded on March 1, 1954. Radioactive fallout brought death to one man and more than a year in the hospital to the other 22 crew members.

LAUBACH, FRANK C.—LETTERS BY A MODERN MYSTIC. *Fleming H. Revell Co.,* $1.00. "The Apostle of Literacy," Frank Laubach, has made it possible for some 60,000,000 people to learn to read through his "Each One Teach One" movement. The letters are those written to his father when Laubach was a missionary in the Philippines. Small in format and in price, this is a very big book.

LENGYEL, CORNEL—FOUR DAYS IN JULY. *Doubleday,* $4.95. A novel about our Declaration of Independence and the days in which the Continental Congress "fought it out." A stirring book.

LEOPOLD, NATHAN — LIFE PLUS 99 YEARS. *Doubleday,* $5.50. Erle Stanley Gardner has written a thought-stirring introduction to Leopold's autobiography, covering his 33 years in prison. The reader watches an arrogant boy become a man who turns his fine intellect to constructive thought.

MACDONALD, MALCOLM—BORNEO PEOPLE. *Knopf,* $6.50. Britain's late Prime Minister's son was one-time Governor General of Borneo. He knows the land and its people and the result is a delightful travel book.

MARSHACK, ALEXANDER — THE WORLD IN SPACE: The Story of the International Geophysical Year. *Nelson,* $4.95. Those who wish to be well-informed will turn to this report on the collaboration of world scientists in their effort to learn more about our sun, the weather, winds and the seas.

MAYER, MARTIN—MADISON AVENUE, U.S.A. *Harper,* $4.95. A report on the advertising industry, this fine book covers all phases of the business.

MONKMAN, NOEL—FROM QUEENSLAND TO THE GREAT BARRIER REEF: A Naturalist's Adventures in Australia. *Doubleday & Co.,* $4.50. Noel Monkman is a capable photographer as well as a naturalist. Many people are perhaps unknowingly familiar with his photographic skill, for he filmed much of *The Sea Around Us.*

MOORHEAD, ALAN—THE RUSSIAN REVOLUTION. *Harper,* $5.00. If we would understand Soviet Russia we must look to its beginnings as well as to present-day Communist Russia. Alan Moorhead gives a brief picture of Russia in 1916, goes back to Trotsky and the 1905 uprising, and continues with a clear account of the revolution of 1917.

NEVINS, ALLAN, Editor — TIMES OF TRIAL: Great Crises in the American Past. *Knopf,* $5.95. Drawn from the *American Heritage Magazine,* these essays of our time of trial span the years from 1754 to 1937.

NOTES FROM THE WARSAW GHETTO: The Journal of Emmanuel Ringelbaum. Edited and translated by JACOB SLOAN. *McGraw-Hill,* $5.95. The records of man's inhumanity to man, and of life and death in the Warsaw Ghetto were written in Yiddish by Emanuel Ringelbaum, sealed in a milk can and buried in the ghetto where they remained undiscovered until 1946.

O'DONOGHUE, JOHN — IN A QUIET LAND. *Coward-McCann,* $3.50. County Kerry in rural Ireland was the quiet land of John O'Donoghue's childhood days. His book is one of the best of the many current tales of childhood memories.

RANDOW, HEINZ—ZOO HUNT IN CEYLON. *Doubleday,* $4.00. German zoologist writes of his experiences hunting animals, birds, and snakes for European zoos.

A GUIDE FOR READERS

SCHLESINGER, ARTHUR M., JR.—THE AGE OF ROOSEVELT. The Coming of the New Deal. 1933-34. *Houghton Mifflin,* $7.50. Schlesinger's excellent narrative style produces an even better second volume for *The Crisis of the Old Order.* It's all here—AAA, NRA, TVA, PWA, The Emergency Banking Act, and Social Security. And overshadowing it all is F.D.R.

SETON, ANYA — THE WINTHROP WOMAN. *Houghton Mifflin,* $4.95. Historical fiction is the medium for this true recording of the life of Elizabeth Fones Winthrop, niece of John Winthrop, Governor of the Massachusetts Bay Colony.

STEINBECK, JOHN — ONCE THERE WAS A WAR. *Viking Press,* $3.95. These dispatches were written in 1943 and sent to the New York *Herald-Tribune* from England, Africa and Italy. This is their first appearance in book form.

SWANBURG, W. A.— FIRST BLOOD: The Story of Fort Sumter. *Scribner,* $5.95. Civil War books never die! Devotees will welcome this latest addition to the vast galaxy of Civil War literature. Here is excitement plus excellent historical writing.

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WEIDMAN, JEROME—THE ENEMY CAMP. *Random House,* $4.95. This is an excellent social novel revolving around New York's Lower East Side and a Connecticut suburb. The problems are those of an Orthodox Jew in the gentile world which he feels is the enemy camp.

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THE DAYS OF BOOM AND BUST, by John Kenneth Galbraith. *American Heritage,* Aug.

ELECTRONIC 'EARS' FOR THE DEAF?, by Pierre de Latel. *Science Digest,* Nov.

FEAR IN THE STREETS OF THE NATION'S CAPITAL, *U. S. News and World Report,* Feb. 14.

FRANCE: A FOREWARNING, by Alexander Werth. *The Nation,* Dec. 20.

GESELL ON "THE DIFFICULT YEARS," by Jack Harrison Pollack. *Today's Health,* July.

GOOD BOOKS—35c AND UP. *ChangingTimes,* Aug.

GREAT GIFTS OF ART, 1958. *Fortune,* Dec.

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HOW WE STAND WITH THE CANADIANS, by Walter O'Hearn. *The Reporter,* Mar. 6.

HUNTINGTON LIBRARY, CALIFORNIA TREASURE HOUSE, by David S. Boyer. *The National Geographic Magazine,* Feb.

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ISRAEL. THE SECOND DECADE. *Time,* June 23.

JOHN XXIII RECEIVES HIS TIARA. *Life,* Nov. 17.

JUNIOR COLLEGES: LOW-COST ANSWER TO CROWDED CAMPUSES. *U. S. News and World Report,* May 2.

KHRUSHCHEV: REAPPRAISAL OF A RIDDLE, by Harry Schwartz. *New York Times Magazine,* Aug. 3.

KING NESTOR'S PALACE, by Carl W. Blegen. *Scientific American,* May.

THE LEGEND OF DODGE CITY, by Jack Schaefer. *Holiday,* May.

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PREHISTORIC MAN IN THE GRAND CANYON. *Scientific American,* Feb.

PUBLIC RELATIONS GOOD OR BAD?, by Vance Packard. *The Atlantic Monthly,* May.

QUEMOY 1958: CLASSIC COLD-WAR CAMPAIGN. *Time,* Dec. 29.

THE QUIET DRAMA. BERLIN UNDER A THREAT. *Newsweek,* Nov. 24.

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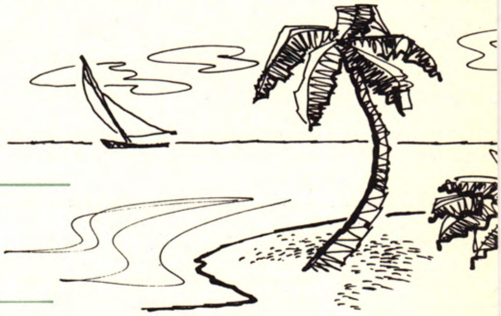

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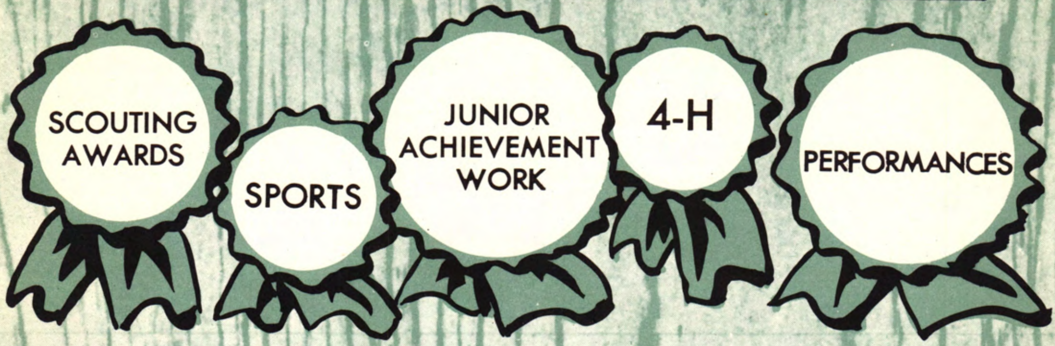

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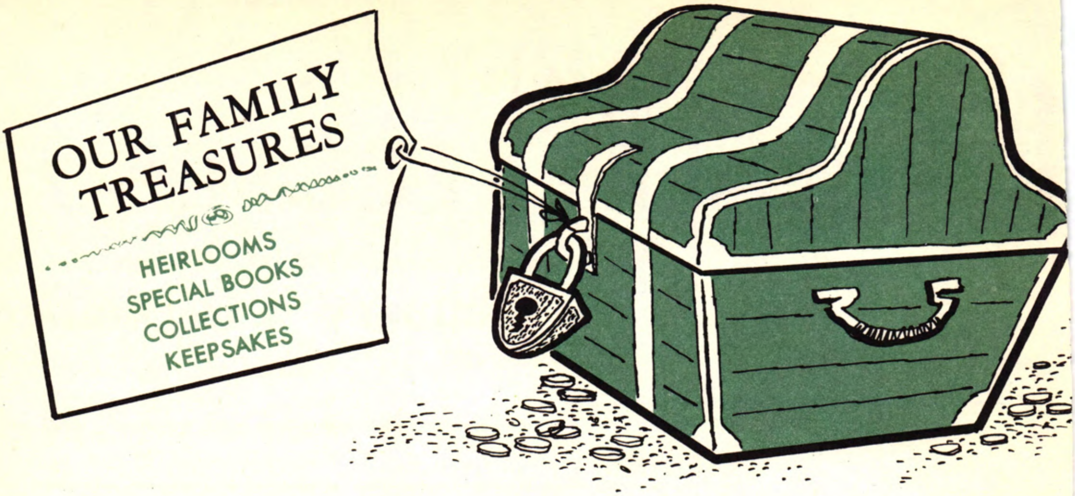

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